



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

**APR 11 2018**

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

**Article Number: 7017 1070 0000 1674 5822**

Todd Furnia, Environmental Manager  
Arconic/Alcoa West Plant  
Arconic Massena Operations  
P.O. Box 150  
45 County Route 42, Park Ave. East  
Massena, New York 13662-0150

**Re: Arconic/Alcoa West Plant – Massena, 45 County Route 42 (Park Ave East)  
EPA Inspection August 30 to September 1, 2017  
SPDES Permit No: NY0001732**

Dear Mr. Furnia:

Representatives from the United States Environmental Protection Agency (EPA) Region 2, EPA Headquarters and the New York State Department of Environmental Conservation (NYSDEC) conducted a Compliance Evaluation Inspection ("CEI") at the subject Facility on August 30 to September 1, 2017. The purpose of the CEI was to evaluate compliance with your New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Permit. The subject facility has Permit coverage under an individual SPDES Permit NY0001732.

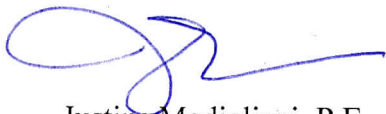
**Within forty-five (45) calendar days of receipt of this letter please submit, a written response to the CEI Report with the actions (including a schedule) that are being taken or will be taken to address each of the Potential Non-Compliance Items as well as the Areas of Concern (items that should be improved for better operations of the facility), to EPA and NYSDEC (See Addresses Below).**

**Justine Modigliani, P.E., Chief, Compliance Section  
Division of Enforcement and Compliance Assistance  
U.S. Environmental Protection Agency, Region 2  
290 Broadway, 20<sup>th</sup> Floor  
New York, New York 10007**

**Joseph DiMura, P.E., Director  
Bureau of Water Compliance Programs  
Division of Water, NYSDEC  
625 Broadway  
Albany, New York 12233-3506**

Should you have any questions regarding this letter, feel free to contact me at (212) 637-4268 or contact Mr. Murray Lantner, P.E. of my staff at (212) 637-3976 (lantner.murray@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Modigliani', with a stylized flourish extending to the right.

Justine Modigliani, P.E., Chief  
Compliance Section

Enclosure – Compliance Evaluation Inspection Report

cc: Tim Long – tim.long@arconic.com  
David Rarick, NYSDEC Region 6, via email, david.rarick@dec.ny.gov  
Joseph DiMura, P.E., Director, NYSDEC Bureau of Water Compliance Programs



United States Environmental Protection Agency  
Washington, D.C. 20460

## Water Compliance Inspection Report

### Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/>					
Remarks					
21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <input type="checkbox"/> 31 <input type="checkbox"/> 32 <input type="checkbox"/> 33 <input type="checkbox"/> 34 <input type="checkbox"/> 35 <input type="checkbox"/> 36 <input type="checkbox"/> 37 <input type="checkbox"/> 38 <input type="checkbox"/> 39 <input type="checkbox"/> 40 <input type="checkbox"/> 41 <input type="checkbox"/> 42 <input type="checkbox"/> 43 <input type="checkbox"/> 44 <input type="checkbox"/> 45 <input type="checkbox"/> 46 <input type="checkbox"/> 47 <input type="checkbox"/> 48 <input type="checkbox"/> 49 <input type="checkbox"/> 50 <input type="checkbox"/> 51 <input type="checkbox"/> 52 <input type="checkbox"/> 53 <input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56 <input type="checkbox"/> 57 <input type="checkbox"/> 58 <input type="checkbox"/> 59 <input type="checkbox"/> 60 <input type="checkbox"/> 61 <input type="checkbox"/> 62 <input type="checkbox"/> 63 <input type="checkbox"/> 64 <input type="checkbox"/> 65 <input type="checkbox"/> 66 <input type="checkbox"/> 67 <input type="checkbox"/> 68 <input type="checkbox"/> 69 <input type="checkbox"/> 70 <input type="checkbox"/> 71 <input type="checkbox"/> 72 <input type="checkbox"/> 73 <input type="checkbox"/> 74 <input type="checkbox"/> 75 <input type="checkbox"/> 76 <input type="checkbox"/> 77 <input type="checkbox"/> 78 <input type="checkbox"/> 79 <input type="checkbox"/> 80 <input type="checkbox"/>					
Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved	
67 <input type="checkbox"/> 68 <input type="checkbox"/> 69 <input type="checkbox"/>	70 <input type="checkbox"/>	71 <input type="checkbox"/>	72 <input type="checkbox"/>	73 <input type="checkbox"/> 74 <input type="checkbox"/> 75 <input type="checkbox"/> 76 <input type="checkbox"/> 77 <input type="checkbox"/> 78 <input type="checkbox"/> 79 <input type="checkbox"/> 80 <input type="checkbox"/>	

### Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)	Entry Time/Date	Permit Effective Date
Arconic Alcoa West Plant, Massena Operations- 45 County Road 42, Park Ave. East, Massena NY, 13662	08/30/17, 9AM	
	Exit Time/Date	Permit Expiration Date
	9/1/17, 4PM	
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data (e.g., SIC NAICS, and other descriptive information)	
Tim Long, Senior Env. Engineer Todd Furnia (315) 764 4916, Todd.Furnia@arconic.com, Env. Mgr. Arconic Massena Operations	Alcoa West Plant Reps. Nate Rufa - Env. Mgr Kevin Jarvis	
Name, Address of Responsible Official/Title/Phone and Fax Number	Contacted	
Steve Rombough, Plant Mgr. Arconic Massena Operations, P.O. Box 150, Massena, NY 13662	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

### Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input checked="" type="checkbox"/> Laboratory	<input checked="" type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

### Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Murray Lantner, Env. Eng.	EPA/DECA-WCB (212) 637-3976	3/29/18
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date
Justine Modigliani, P.E. Chief Compliance Section	EPA/DECA-WCB/ (212) -637-4268	4/5/18

# INSTRUCTIONS

## Section A: National Data System Coding (i.e., PCS)

**Column 1: Transaction Code:** Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

**Columns 3-11: NPDES Permit No.** Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. (Use the Remarks columns to record the State permit number, if necessary.)

**Columns 12-17: Inspection Date.** Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

**Column 18: Inspection Type\*.** Use one of the codes listed below to describe the type of inspection:

A Performance Audit	U IU Inspection with Pretreatment Audit	I Pretreatment Compliance (Oversight)
B Compliance Biomonitoring	X Toxics Inspection	@ Follow-up (enforcement)
C Compliance Evaluation (non-sampling)	Z Sludge - Biosolids	{ Storm Water-Construction-Sampling
D Diagnostic	# Combined Sewer Overflow-Sampling	} Storm Water-Construction-Non-Sampling
F Pretreatment (Follow-up)	\$ Combined Sewer Overflow-Non-Sampling	: Storm Water-Non-Construction-Sampling
G Pretreatment (Audit)	+ Sanitary Sewer Overflow-Sampling	~ Storm Water-Non-Construction-Non-Sampling
I Industrial User (IU) Inspection	& Sanitary Sewer Overflow-Non-Sampling	< Storm Water-MS4-Sampling
J Complaints	\ CAFO-Sampling	- Storm Water-MS4-Non-Sampling
M Multimedia	= CAFO-Non-Sampling	> Storm Water-MS4-Audit
N Spill	2 IU Sampling Inspection	
O Compliance Evaluation (Oversight)	3 IU Non-Sampling Inspection	
P Pretreatment Compliance Inspection	4 IU Toxics Inspection	
R Reconnaissance	5 IU Sampling Inspection with Pretreatment	
S Compliance Sampling	6 IU Non-Sampling Inspection with Pretreatment	
	7 IU Toxics with Pretreatment	

**Column 19: Inspector Code.** Use one of the codes listed below to describe the *lead agency* in the inspection.

A — State (Contractor)	O — Other Inspectors, Federal/EPA (Specify in Remarks columns)
B — EPA (Contractor)	P — Other Inspectors, State (Specify in Remarks columns)
E — Corps of Engineers	R — EPA Regional Inspector
J — Joint EPA/State Inspectors—EPA Lead	S — State Inspector
L — Local Health Department (State)	T — Joint State/EPA Inspectors—State lead
N — NEIC Inspectors	

**Column 20: Facility Type.** Use one of the codes below to describe the facility.

- 1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 — Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 — Federal. Facilities identified as Federal by the EPA Regional Office.
- 5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

**Columns 21-66: Remarks.** These columns are reserved for remarks at the discretion of the Region.

**Columns 67-69: Inspection Work Days.** Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

**Column 70: Facility Evaluation Rating.** Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

**Column 71: Biomonitoring Information.** Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

**Column 72: Quality Assurance Data Inspection.** Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

**Columns 73-80:** These columns are reserved for regionally defined information.

## Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

## Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

## Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

\*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2, DECA-WCB  
20<sup>th</sup> Floor, 290 Broadway, New York, NY 10007**

<b>Compliance Evaluation Inspection – Massena Operations – Alcoa/Arconic West Plant</b>	
<b>Inspection Date:</b> August 30, 2017 to September 1, 2017 <b>Inspection Time:</b>	<b>EPA Representatives:</b> Murray Lantner, P.E. Environmental Engineer, USEPA Region 2, (212) 637-3976, <a href="mailto:lantner.murray@epa.gov">lantner.murray@epa.gov</a> Peter Bahor, Enforcement Officer, USEPA-HQ, (202) 564-7029, <a href="mailto:bahor.peter@epa.gov">bahor.peter@epa.gov</a>  <b>New York State Department of Environmental Conservation, Region 6 Representative</b> David Rarick, P.E. Environmental Engineer II, 317 Washington Street, Watertown, NY 13601 (315) 785-2513 (office), <a href="mailto:david.rarick@dec.ny.gov">david.rarick@dec.ny.gov</a>
<b>On-Site Arconic or Alcoa Representatives:</b> Tim Long – (315) 764-4914 (office), (315) 842-1783 (cell) – <a href="mailto:Tim.Long@arconic.com">Tim.Long@arconic.com</a> Todd Furnia (315) 764-4916 (office) (315) 212-9069 – <a href="mailto:Todd.Furnia@arconic.com">Todd.Furnia@arconic.com</a>  <b>Alcoa Representatives on September 1, 2017</b> Nate Rufa – Env. Mgr Kevin Jarvis	
<b>Site Information:</b> Latitude/Longitude.: 44.950425, -74.893685 Alcoa Inc., Massena Operations, Park Avenue East, P.O. Box 150, Massena NY 13662 (Arconic/Alcoa West Plant)  <b>SPDES Permit</b> NY0001732	

**I. INTRODUCTION**

On August 30 to September 1, 2017, representatives of the United States Environmental Protection Agency (USEPA) Region 2, EPA Headquarters and the New York State Department of Environmental Conservation (NYSDEC) conducted a Compliance Evaluation Inspection (CEI or Inspection) at the Arconic/Alcoa Corp. Massena Operations (West Plant), Massena New York. The objective of this inspection was to assess compliance with the NYSDEC Individual State Pollutant Discharge Eliminating System (SPDES) Permit NY0001732 for its discharges to the Grasse River, Power Canal or Robinson Creek, all tributaries of the St. Lawrence River.

In 2016 the ownership of the facility changed. Aluminum smelting operations are owned by Alcoa Corp. and generally the finishing Operations are owned by Arconic. Arconic is responsible for the SPDES Permit Compliance and Monitoring, which includes Alcoa discharges.

## FINDINGS & OBSERVATIONS

Upon entering the site, EPA inspectors Murray Lantner and Peter Bahr presented credentials to Facility Representatives including Mr. Tim Long and Todd Furnia.

### A. POTENTIAL NONCOMPLIANCE ITEMS

1. Based upon a review of the EPA ECHO database along with letters of non compliance provided by Arconic the following exceedances of effluent limits for the period June 2015 to December 2017

Table of Permit Limit Exceedances (June 2015 to December 2017)

Monitoring Period	Outfall	Parameter	Violation Type		Units	Permit Limit	DMR Value
Dec-17	01F	Cyanide, total [as CN]	DAILY MX	Allowed Increase	ug/L	1100	1700
6/6/17	03A	Fluoride	Action Level	Not a permit Limit Exceedance	mg/l	20,000	23,000
Jul-17	1	Fluoride	DAILY MX	Effluent Gross	lb/d	240	390
Jul-17	1	Aluminum	DAILY MX	Effluent Gross	lb/d	43	56
May-17	1	Aluminum	DAILY MX	Effluent Gross	lb/d	43	63
May-17	1	Benzo[a]pyrene	DAILY MX	Effluent Gross	ng/L	90	100
May-17	1	Fluoride	DAILY MX	Effluent Gross	lb/d	240	250
Apr-17	4	PCB-1242	DAILY MX	Effluent Gross	ng/L	300	500
12/6/16	03A	Fluoride	Action Level	Not a permit Limit Exceedance	mg/l	20,000	20,700
Nov-16	01D	Chloroform	DAILY MX	Allowed Increase	ug/L	20	21

Monitoring Period	Outfall	Parameter	Violation Type		Units	Permit Limit	DMR Value
Sep-16	01D	Coliform, fecal general	7 DA GEO	Allowed Increase	#/100mL	400	736
8/2/16	01A	Oil and Grease	Daily Max.		mg/l	10	31.1/2 = 15.5 mg
8/9/16	01D	Chloroform	DAILY MX	Allowed Increase	ug/L	20	22
8/2/16	01D	Chloroform	DAILY MX	Allowed Increase	ug/L	20	22
Jul-16	01D	Chloroform	DAILY MX	Allowed Increase	ug/L	20	22
Jul-16	01D	Chloroform	DAILY MX	Allowed Increase	ug/L	20	21
May-16	3	Solids, Settleable	DAILY MX	Effluent Gross	mL/L	0.1	0.15
Dec-15	8	Fluoride	DAILY MX	Effluent Gross	ug/L	2100	2200
Nov-15	3	pH	MINIMUM	Effluent Gross	SU	6	0
Aug-15	8	Fluoride	DAILY MX	Effluent Gross	ug/L	2100	2700
Jul-15	8	Fluoride	DAILY MX	Effluent Gross	ug/L	2100	2200
Jun-15	8	Fluoride	DAILY MX	Effluent Gross	ug/L	2100	2200

2. In its June 27, 2017 letter to NYSDEC (Att. 8), Arconic indicated that in May 2017 at Outfall 01I, Aroclor No. 1242 was detected at 230 ng/l. Special condition 4b of the Permit requires that for samples above the Method Detection Limit of 65 ng/l that the permittee must evaluate the treatment system and/or the wastewater source and identify the cause of the detectable level of PCBs in the discharge and it also requires additional measure if the elevated PCBs continue. The June 27, 2017 letter did not contain the required evaluation of the treatment system. The July 27, 2017 DMR cover letter did not contain any additional information on PCBs at Outfall 01I. Please indicate if this evaluation was conducted in subsequent months, and provide that information.
3. Special Condition B of the Permit specifies that all requirements of the approved miscellaneous wastewater plan (MWP) must be complied with. During the inspection, a January 8, 2013 DEC approval of the wastewater management plan (assumed to be the same as the MWP) included:

- a. Identification of Miscellaneous waters for treatment at 01D or 01A – overflow from the sanitary equalization tank during wet weather events and 01 D outages is sent to the 01A (CITF) treatment system where it will receive settling, dual media filtration and carbon adsorption. However, Outfall 01A does not have CBOD or Fecal Coliform limits that are contained in Outfall 01D and therefore discharging sanitary wastewaters discharging through Outfall 01A would not adequately monitored. Additionally, there are other effluent limits that Outfalls 01A and 01D do not have in common (Outfall 01D contains limits or action levels for aluminum, boron, cadmium, copper, cyanide, fluoride, lead, surfactants, zinc, individual phenols and individual VOCs, but outfall 01A does not. The MWP contains a list of wastewater that can be discharged via either outfall. Please verify that the 2017 Water Usage Schematic (Att. 7) contains the currently configured flow system. In addition, please explain the reason for 01A and 01D having different limits if they share some common wastewater streams.
  - b. Waters located in process sumps at Outfall 01B. Please indicate if wastewaters that are permitted to flow through other outfalls are being collected and discharged through Outfall 01B. And provide a list of these other outfalls.
4. As shown in photographs 866, 909, 910 there are uncovered and unstabilized material storage piles. Arconic employees explained that material storage piles would be used to cover concrete areas and not be ripping up the concrete. The area that they will be applying soil was greater was estimated to be over an acre. Arconic is required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) as required by Special Condition 4.B of its Permit for construction activities 1 acre or greater. Arconic employees said that they don't need SWPPP because they will be applying the soil from the piles on top of concrete and not ripping up the concrete. However, the application of soils over an area 1 acre or greater would trigger the requirement to develop and implement a SWPPP.

Please Note that - Under the NYSDEC SPDES General Permit for Stormwater For Stormwater From Construction Activities - Appendix A defines Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

As shown in photos 911 and 912 there is a material storage pile with a blue tarp covering most but not all of the pile that was to be used for cover material by the remedial group. This material storage pile must be kept covered and proper erosion and sediment controls developed under its Best Management Practices (BMP) Plan Special Condition 4.A.11

(Erosion and Sediment Control and/or SWPPP. Arconic representatives said that they would make sure those piles are kept covered.

## B. AREAS OF CONCERN

5. On August 29, 2017, the inspection team was not allowed to inspect Outfall 004 because of an asbestos abatement project was being conducted.
6. The Central Impoundment (Outfall 01A) consists of an east and west basin with a total volume of 36 MG. Based on its August 25, 2017 letter, on July 25, 2017, Arconic identified that there was a 1.77" rainfall event at the same time that the Central Impoundment System West Chamber was down for maintenance and necessitated the redirection of the Area III Impoundment directly to Outfall 001 instead of flowing through Outfall 01A. Arconic planned to take the east basin down in 2018 for maintenance. The January 8, 2013 DEC Letter approves the current Wastewater Management Plan Update (Att. 2) also authorizes Area I waters from Pump Station 154 to be discharged to Outfall 004 instead of Outfall 01A. Please provide the current operation status of the east and west basins of the central impoundment.
7. Outfall observations are described below. Items that present an Area of Concern are Marked with a "Y". If no Area of Concern was noted during the inspection it is marked with a "N". Please respond to those outfalls where Area(s) of Concern are noted.

Outfall	Observation	Photos	Area of Concern (Y or N)
001	<p>As shown in photograph 858, Attachment 1A, the boom at Outfall 001 was said to be changed quarterly. As shown in photo 858 the inner boom had much vegetative growth. Please verify the cleaning and changing frequency for the booms.</p> <p>Alarm for outfall (dialer) has been disconnected because control room was receiving unwarranted alarms. Paper rolls in flow were missing since Feb. 2017 for the river monitor.</p>	858	<p>Y – Alarm Dialer disconnected.</p> <p>Frequency of boom maintenance</p>
003	Outfall 003 (18" Parshall Flume) had two head sensors to measure submerged flow Ha/Hb. The flow charts for the outfalls did not include a chart for head and submerged head, only a chart based on the head in the converging section of the flume. Does	859 to 861	Y – Does diverging section of flume become submerged?

Outfall	Observation	Photos	Area of Concern (Y or N)
	this outfall become submerged? If so does the flow program at 003 take submergence into account?		
01A	Free of Foams and Sheen, 18" Cipolletti Weir (head 0.455') flow measuring 710 gpm consistent with flow chart for this type of Weir		N
01F	Clarifier for cyanide and fluoride wastewaters from on-site. Was not treating wastewater at the time of the inspection. Arconic representatives said that Pot Pile A wastewater collection is shut down from June to October 1. Indicated that the 01F treatment plant was built in 1994 and are planning to upgrade this facility (what is status of upgrade)?	871, 872	Y – Status of Wastewater Treatment Plant upgrade for 01F?
01D	No flow at the time of the inspection. Backwash tank was still flowing. Potassium Permanganate pump was broken. Waiting for parts. Feeding potassium at a different location (Building 79) (01B and 01F)		Y – Status of Potassium Permanganate Pump
01B	Oil Wastewater Treatment – Area III O/W separator.		N
004	<p>Pump 1 VFD was out of service. Said that there was a replacement available and new pump would be installed the following week.</p> <p>Arconic representatives indicated that they are considering additional treatment for 01G or expanding the 004 lagoon.</p> <p>As shown in Photo 884 in Att. 1a there was soil and pallets at the 004/005 impoundment that should be cleaned up.</p>		<p>Y (Status of Pump 1 and other pumps for 004)</p> <p>Status of 01G treatment or 004 lagoon expansion.</p> <p>Clean up debris at 004/005 impoundment.</p>
007	No Flow through 4.5' H FLume	879, 881	N
01G	Outfall 01G (heat treat waters from Area I) was said to flow to 004 but the permit specifies that Outfall 01G flows to Outfall 001 – 01G consists of the Bldg. 131 and 140 separate discharge		Y – remove sediment from 01G-140

Outfall	Observation	Photos	Area of Concern (Y or N)
	<p>points 01G-131 – No flow 0 GPM through 90 Deg. V Notch Weir. 01G-140 V Notch Weir 0.85” (751 gpm). There appeared to be a buildup of sediment at the bottom of discharge basin (01G-140). Should clean box. (The Staff gauge at 01G-140 was at a level of 1.55’). Please explain the correlation between the staff guage and the head measurement for the V Notch Weir at 01G-140. 01G was said to be currently flowing to Outfall 004, not to 001 as specified by permit. The 2013 WMP does indicate that Outfall 004 would receive flow from Area I waters from Pump station 154. Please verify if Outfall 01G is include in these PS 154 wastewaters?</p>		<p>discharge basin.</p> <p>Correlation between staff gauge and measured head at 01G-40 V Notch Weir..</p> <p>Whether WMP authorizes 01G discharges to Outfall 004.</p>
01I	<p>As shown in photo 887 the label at the outfall indicates that there is a 1’ Palmer Bowlus Flume. The flow chart submitted by Alcoa indicates that 01I is a 24” Palmer Bowlus Flume (Attachment 3). During the inspection, the display for the flow meter indicated a head of 2.268” and a flow of 127 gpm. This head and corresponding flow rate is based upon a 24” Palmer Bowlus Flume. Please clarify the actual size of the flow meter and ensure that the label on the flow meter is accurate. Are PCB samples grabbed from composite sample tubing?</p>	4887, 4888	<p>Y – Clarify flume dimensions and if flow calculated properly? Verify if PCB sample collection conforms with approved analytical method.</p>

Outfall	Observation	Photos	Area of Concern (Y or N)
008	<p>21" Palmer Bowlus Flume, the refrigerator was not cold (14 Deg. C) but said that it is only turned on the first week of the month. Flow at 72 GPM (0.142'). Flow meter was Calibrated last on 9/13/16. Based on the formula for flow through a 21"</p> <p><math>GPM = 2069 H(ft)^{1.9}</math></p> <p>A head of 0.142' would translate into a flow of 50.7 gpm. The flow meter reported a flow of 72 gpm with a head of 0.142'. The flow charts at <a href="https://www.openchannelflow.com/assets/uploads/documents/21-inch_palmer-bowlus_discharge_table.pdf">https://www.openchannelflow.com/assets/uploads/documents/21-inch_palmer-bowlus_discharge_table.pdf</a> indicated that at flows 0.17' and below that this size flume is inaccurate due to fluid flow properties and boundary conditions.</p> <p>Said that power at Outfall 008 is lost frequently and Facility Representatives need to reset the breaker.</p>	893 to 895	<p>Y – Please check flow calculations.</p> <p>-Power outage issues at outfall.</p>
Area III Impoundment	<p>Area III Impoundment 1 of 4 pumps down since July 28, 2015. Dead frogs also seen on pond liner (897). Influent to Pond shown in photo 896. PCB influent may be sampled via composite sampling hose. Please ensure that Teflon tubing is used for these samples in accordance with EPA Method 608.</p> <p>Said that they don't use the Area III pond overflow.</p>	896	Y – status of pump, PCB sample tubing.
03A	<p>Contaminated groundwater outside Pot Lines. The outfall did not look like it was flowing and the line may need to be cleaned since no flow was entering the manhole.</p> <p>The Area III BMP checklist for June 28, 2017 and July 24, 2017, identified that 03A tested outside the monitor limits for June (likely for Fluoride) and indicated that lines should be cleaned on Aug. 29<sup>th</sup>. (See Attachment 4)</p>	898	Y – maintain (clean/inspect) line if needed.
01H	Discharge clear, free of foams and sheens, 90 Deg. V Notch Weir. Flow meter read 0.182' – 16 gpm. (consistent with 90 degree V Notch Weir formula $1122 H^{2.5}$ )		N
01E	<p>Ingot WWTP said to be owned by Alcoa, but part of Arconic SPDES Permit. A composite sample is being conducted daily for process control. Have a 1' Parshall Flume for flow monitoring. Treatment consists of a scale pit, rope skimmer (operates on a timed basis). The scale pit was said to be cleaned once per year</p>	899 - 907	Y – Composite Sampling refrigerator and

Outfall	Observation	Photos	Area of Concern (Y or N)
	<p>in September (by Alcoa). The Area II BMP Checklist for June 28, 2017, (Att. 5) identified that the ingot wastewater settling wells were due for cleaning.</p> <p>Composite Sampling Refrigerator Temperature was 15 deg. C (high temp), and was not working. Arconic employees explained that they put bagged ice in the composite sampler. Said that sampling conducted in first two weeks of month.</p> <p>Exhaust fans were not properly operating in outfall building.</p> <p>There is a bubbler and an ultrasonic flow meter at 01E. The bubbler is being used for flow reporting and the ultrasonic used for polymer feed.</p> <p>As shown in the photos there was an accumulation of floating material in the clarifier and growth attached to the weirs. Facility representatives explained that sludge had not been removed from the clarifier since 2007.</p> <p>Oil and grease samples are run at ALS Labs in narrow mouth bottles. Oil and Grease must be collected directly into the sampling container (which is typically a wide mouth glass jar)</p>		<p>ventilation fan status.</p> <p>Status of cleaning ingot wastewater settling wells.</p> <p>Clean clarifier floating material and accumulation on weirs – need to ensure proper O&amp;M. of clarifier and proper sludge removal.</p> <p>Oil and Grease sample container.</p> <p>Composite Sampling Refrigerator</p>
007	4.5' H Flume – SW Runoff – will typically call Nicole Polarolo, EHS Professional to activate sampler and grabs on off hours.	914, 915	N
Pot Pile A	Pot Pile A – Photos of Pump Station. The ground water pumps were not running at this time. (generally are not run during the summer due to lower ground water levels)	4888 to 4891	N
Pot Pile I	Pot Pile I, ST-177, Pumped 1/week.		N

8. During the inspection, we also visited the pot line area owned by Alcoa, but ultimately discharges under the Arconic SPDES Permit. As shown in photos 916 to 924 there was Alumina dust around stormwater inlets and in many places in the yard due to leaks of

alumina from leaking air slides, air lifts and other sources. The Best Management Practices Plan portion of the Permit and the BMP Plan for the facility does require good housekeeping and preventative maintenance for this area. The Area III BMP Checklist in house inspection dated July 24, 2017 identified poor housekeeping in Area III potline courtyard area. And also identified that stormwater inlet controls (drain pyramids) were installed on some inlets. It did also identify numerous leaks in the alumina conveyance system. Similar findings were made in the June 28, 2017 Area III BMP Checklist. (Attachment 4)

Alcoa representatives said that they sweep the courtyard twice per week, but sweeper had been broken for 2 days and said that stormwater inlets are vactored once per quarter. Improved housekeeping and repair of leaking equipment is needed in this area.

9. The Outfall 004/005 Impoundment (photos 882 to 884) was said to be designed for a 19 year storm, and overflows at a height of 17'. Based on the letter from Arconic (excerpt below) it overflowed in July 2017. The letter indicated that there was a violation due to dewatering of central impoundment as well. Special Condition O of the Permit authorizes discharges from 005 and bypasses of the 004 carbon unites when stormwater runoff exceeds the design storm. The design storm was thought to be a 19 year storm. Please verify whether the 004/005 system is designed to handle the 25 year storm, or if additional capacity is needed in this system.

#### Outfall 001

Date	Parameter	Result	Limit
7/25/2017	Fluoride	390 lbs daily/max	240 lbs daily/max
7/25/2017	Aluminum	56 lbs daily/max	43 lbs daily/max

On 8/4/2017, Arconic's Tim Long notified NYSDEC's David Rarick of an exceedance of the above parameters at the 001# Outfall. On 7/25/2017, Massena experienced approximately 1.77 inches of rain. During this time frame, The Central Impoundment Treatment System West chamber was being de-watered for a cleaning project to take place in August. The de-watering necessitated the redirection of the Area III Impoundment directly to the Outfall 001 where under normal operations it receives treatment via the Central Impoundment treatment system.

10. The Area III Carbon – BMP Checklist dated August 23, 2017, (Att. 6) identified that there was poor housekeeping in the coke/pitch storage area. And indicated that the door needs to be kept closed to avoid the escape of carbon dust. What is the status of the housekeeping in this area?
11. Based on review of records for the June 2017 DMR at Outfall 004 an Oil and Grease exceedance of 17.5 mg/l (limit is 10 mg/l) was said to be due to suspected lab error, possibly inadvertently spiking the sample, and the backup preserved volume was analyzed with a result of non-detect. The facility reported a result of 0 mg/l for Oil and

Grease at Outfall 004 in the DMR. Technically if duplicate samples were conducted an average of these 2 results should have been reported.

12. The June 2017 DMR provided during the inspection included the Analytical Test Methods for Arconics different labs – Test America (TA), Life Science Labs, ALS Environmental, Pace and Alpha:
  - a. Available Cyanide by TA Lab– lists method OIA-1677. 40 CFR 136.3 specifies method OIA-1677-09 but the Permit does specify OIA-1677 (special condition F). However, the Reporting Limit (RL)/Method Detection Limit (MDL) for this parameter did not include units.
  - b. For Phenolics Total 4AAP by ALS Lab, the method is listed as EPA Method 420.4 (modified) please verify that the modified method is an approved method.
13. Review of the June 2017 DMR and lab reports indicated that:
  - a. The DMR did not have a box for reporting the individual monthly BNAs at Outfall 01B as required by the Permit. Based on the lab report, Arconic did conduct the necessary monitoring for reporting this data (Phthalates, PAHs, Phenols);
  - b. There are several instances where Arconic was rounding the numbers reported on the DMR. For example, the average flow at Outfall 01D was 67,611 gpd based on the flowlink report, but was reported on the DMR as 67,600. TDS at Outfall 01D based on the laboratory reports was a monthly average of 417 and a daily max of 562 lbs/day but was reported as 420 and 560 lbs/day. Similarly, the TDS concentrations were reported as 880 and 930 mg/l on the DMR but the lab reports for the monthly average and daily maximum reported 875 and 934 mg/l respectively on the DMR.
  - c. 01H Fact Sheet indicates production based limitations under 40 CFR 467.33 (were based on 434,000 and 130,00 lbs/day) well above the production in June 2017 which was 1,740 tons per month which is 204,000 lbs (if a 17 day month used as was used in the flow data for June 2017) or 116,000 lbs per day if a 30 day month was used.
  - d. Arconic reports its Endothall usage and discharge concentrations per may and June 2016 letters at outfall 01A. Please provide the DEC approval of Endothall usage and the allowable concentrations.
14. The Chain of Custody sheet for the PCB Analysis conducted on June 1, 2017 by Alpha Labs did not indicate that the sample was kept on ice  $\leq 6^{\circ}\text{C}$  as required by 40 CFR 136.3 Table 2 (unless sample analyzed in 15 minutes). The sample was received at Alpha Labs on June 6, 2018.
15. For Outfall 01E the Arconic reported 7000, 3370 Tons round ingot casting (Direct Chill Casting) and continuous caster respectively. How does DMR differentiate between the two, it appears that the DMR should be modified to distinguish between these 2 different data points.

- | SAMPLE DATE | QC TYPE | METHOD                    | PARAMETER                    | VALUE | QUALIFIER | UNIT |
|-------------|---------|---------------------------|------------------------------|-------|-----------|------|
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | Aroclor 1242                 | 0.065 | U         | UG/L |
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | Aroclor 1248                 | 0.065 | U         | UG/L |
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | Aroclor 1254                 | 0.065 | U         | UG/L |
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | Aroclor 1260                 | 0.065 | U         | UG/L |
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | 2,4,5,6-Tetrachloro-m-xylene | 85    |           | %REC |
| 6/15/2017   | SMPL    | EPA Method 608, PCB Water | Decachlorobiphenyl           | 100   |           | %REC |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | Aroclor 1242                 | 0.05  | U         | UG/L |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | Aroclor 1248                 | 0.05  | U         | UG/L |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | Aroclor 1254                 | 0.05  | U         | UG/L |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | Aroclor 1260                 | 0.05  | U         | UG/L |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | 2,4,5,6-Tetrachloro-m-xylene | 88    |           | %REC |
| 6/15/2017   | DUP     | EPA Method 608, PCB Water | Decachlorobiphenyl           | 106   |           | %REC |

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17. Review of the laboratory sheets provided by Arconic for June 2017 showed the following report, but its unclear from the information where this sample was taken.

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

Client:	Arconic	Service Request:	R1705352
Project:	Arconic - (West Plant) SPDES/COC # 12465	Date Collected:	06/12/17 08:35
Sample Matrix:	Water	Date Received:	06/13/17 09:00
Sample Name:	2017001443 WLOC4-GRAB-WA-061217	Basis:	NA
Lab Code:	R1705352-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed
Fluoride, undistilled	300.0	2.29	mg/L	0.10	1	06/17/17 05:52

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

Client:	Arconic	Service Request:	R1705647
Project:	Arconic - (West Plant) SPDES/COC # 12474	Date Collected:	06/19/17 08:55
Sample Matrix:	Water	Date Received:	06/21/17 09:15
Sample Name:	2017001514 WLOC4-GRAB-WA-061917	Basis:	NA
Lab Code:	R1705647-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Fluoride, undistilled	300.0	2.39	mg/L	0.10	1	06/23/17 00:55	
Hardness, Total as CaCO3	SM 2340 C-1997(2011)	260	mg/L	20	1	06/27/17 14:00	

**C. OTHER FINDINGS**

1. As shown in photographs 853 to 855 the Facility has a BMP Plan and it conducts routine BMP inspections. Facility representatives indicated that environmental training is conducted annually (usually in October) for approximately 30 minutes per year. Contractors were said to also take training
2. Four hour composite samples are said to be composited every 30 minutes as per special condition C. (Outfalls 1, 3, 4, 7, and 8)
3. Review of the June 2017 DMR and accompanying reports indicate that PCBs were non-detect at <65 ppb at the Area III impoundment influent and effluent.

4. Anode Bake Quench Tank, said that water is recirculated, but tank was said to be cleaned once per year. Anode Bake Quench tank wastewater was said to be sent to Building 79 wastewater treatment. Non contact cooling water sent to Area III impoundment (to outfall 01A to 004)

#### **D. CLOSING**

A closing conference was held with facility representatives explaining the EPA's findings identified at the time of the CEI and any additional questions were answered at that time.

## **II. ATTACHMENTS**

Attachment 1A – EPA Photographs (M. Lantner)

Attachment 1B – EPA Photographs (P. Babor)

Attachment 2 – January 8, 2013 DEC approval for Waste Water Management Plan Update

Attachment 3 – Flow Meter Information

Attachment 4 – July 24, 2017 and June 28, 2017 Area III BMP Checklist.

Attachment 5 – Area II – BMP Checklist June 28, 2017

Attachment 6 – Area III Carbon – BMP Checklist, August 23, 2017

Attachment 7 – 2017 Water Usage Schematic

Attachment 8 – June 27, 2017 DMR Cover Letter for May 2017 DMR.

Attachment 1, <sup>A</sup>Arconic and Alcoa Unedited Digital Photos August 30 to

Sept. 1, 2018

Massena Operations (Massena West Plant)

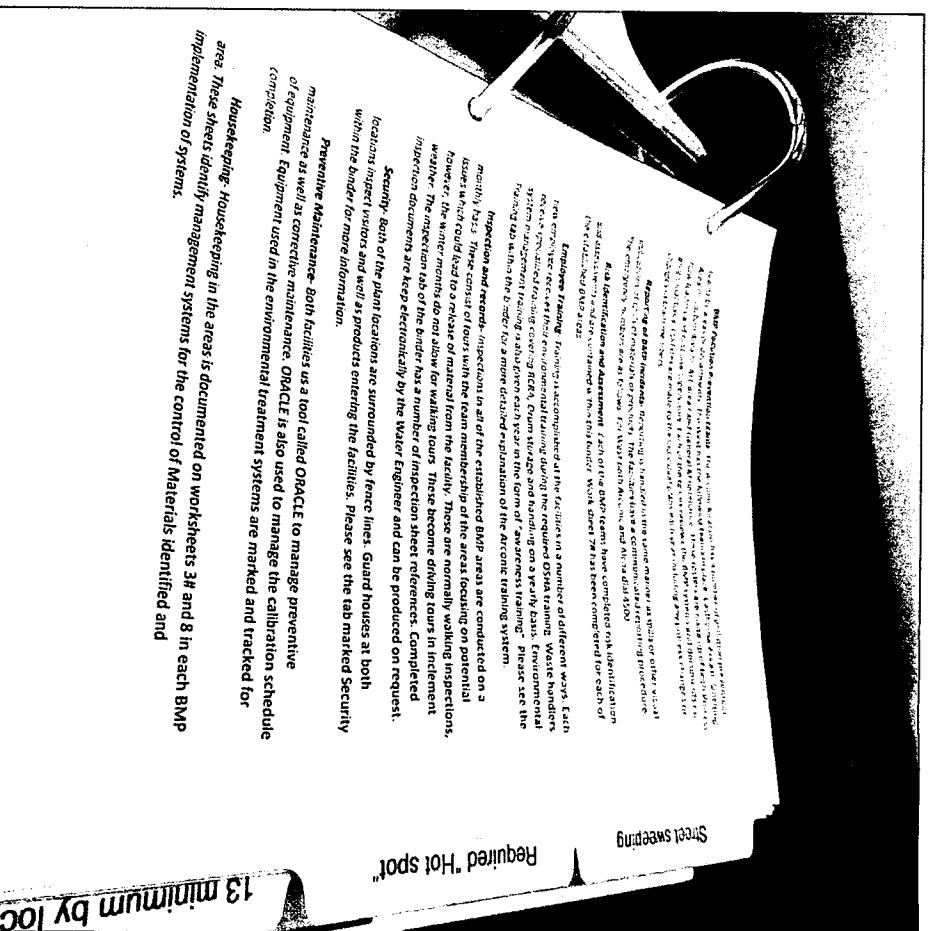
Park Ave. East, Massena NY

Nikon Coolpix P510 Digital Camera

Murray Lantner, EPA Region 2, DECA-WCB



DSCN4853 – Cover Page of BMP Plan



DSCN4854 – page of BMP Plan

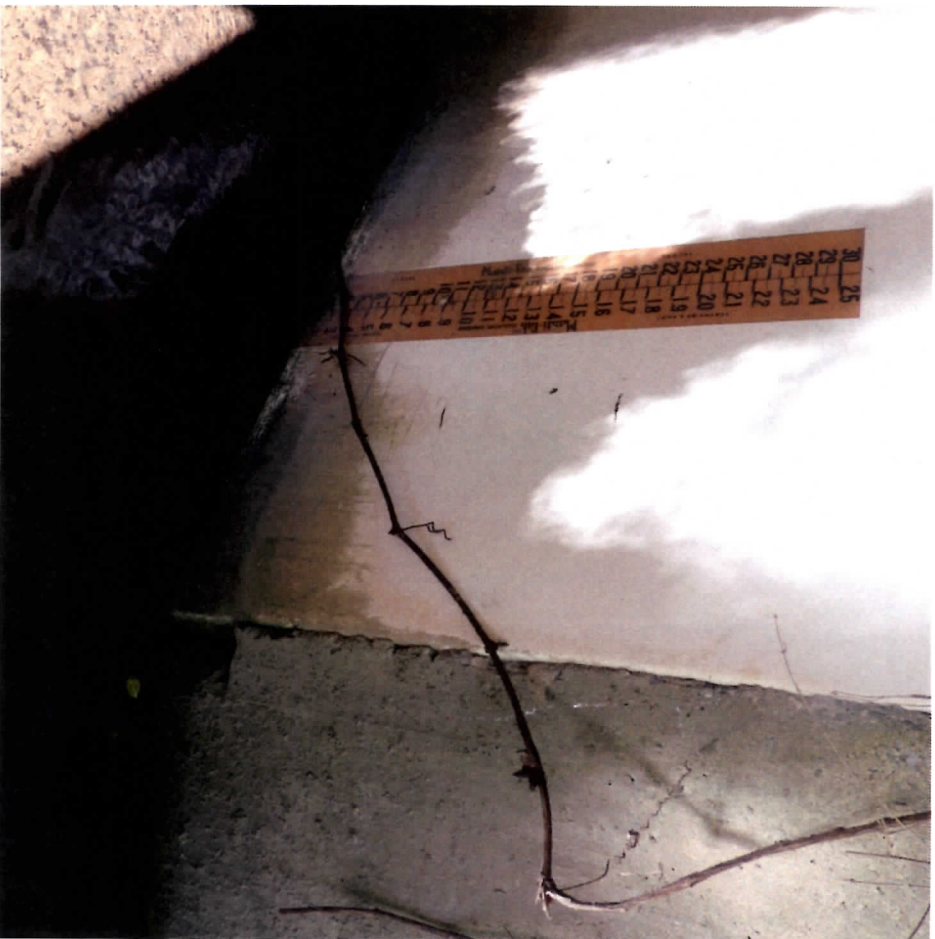




DSCN4857 – some foam/scum prior to outfall 001 weir



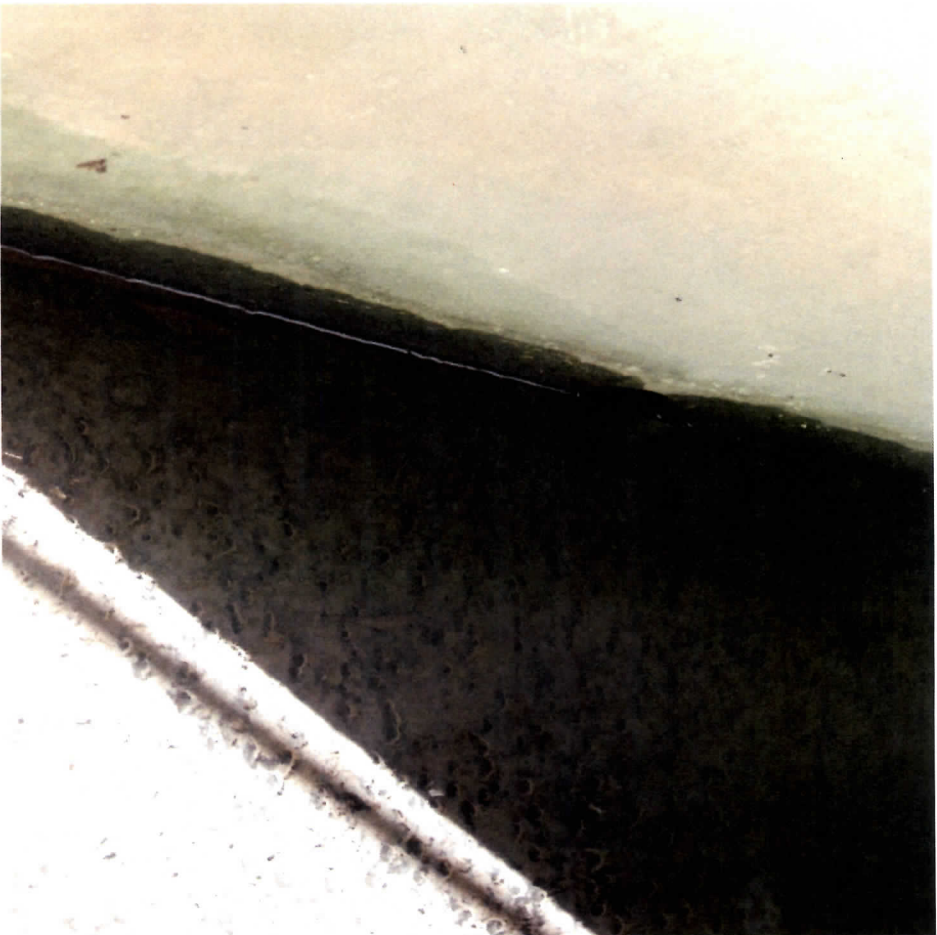
DSCN4858 – 001 Outfall Booms in Grasse River



DSCN4859 - Outfall 003 – Parshall Flume (staff gauge)



DSCN4860 - Outfall 003 Parshall Flume



Entrance to Stilling Well to measure head at Outfall 003  
DSCN4861



DSCN4862 - 18" Cipolletti (trapezoidal) weir - Outfall 01A



DSCN4863 – Unused Stormwater Pond



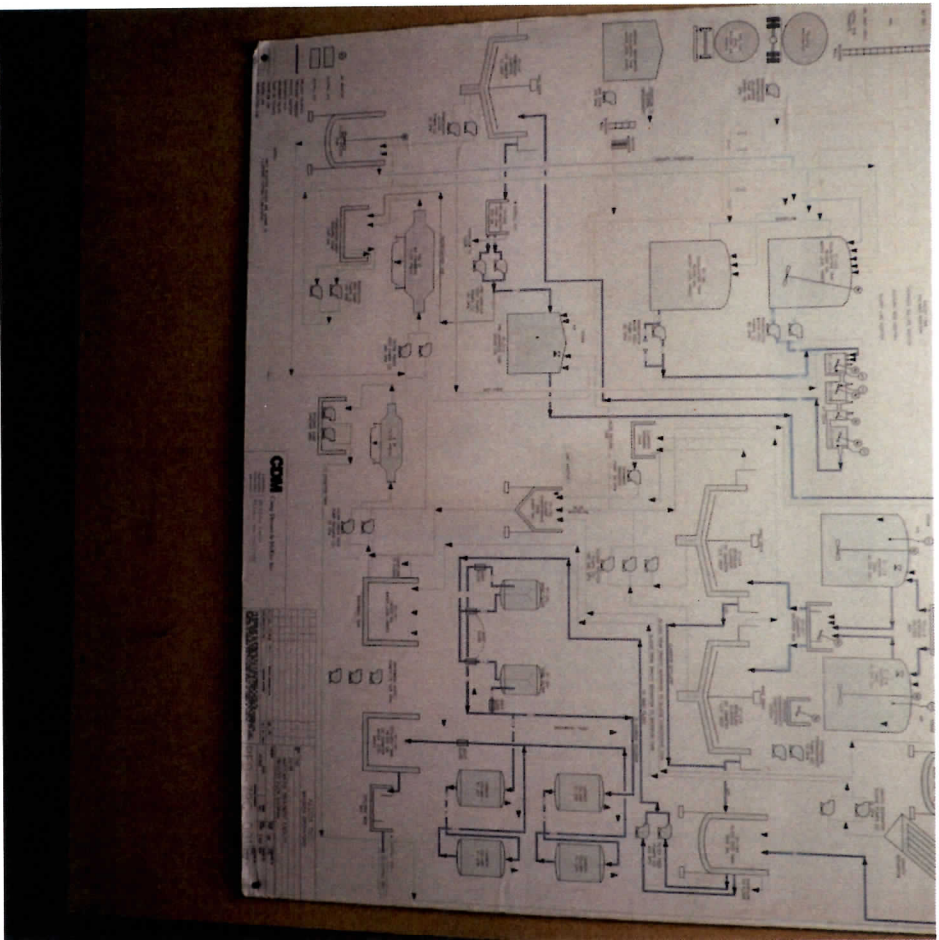
DSCN4864 – Central Impoundment (west side shutdown)



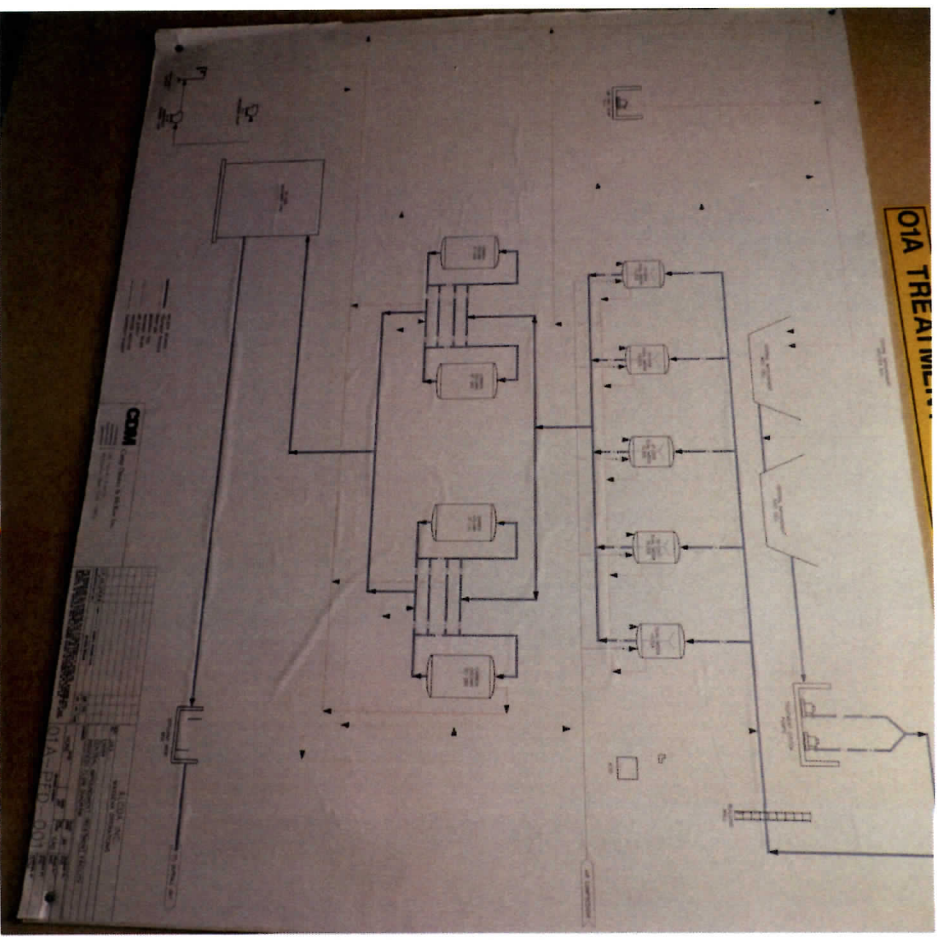
DSCN4865 - Aluminium



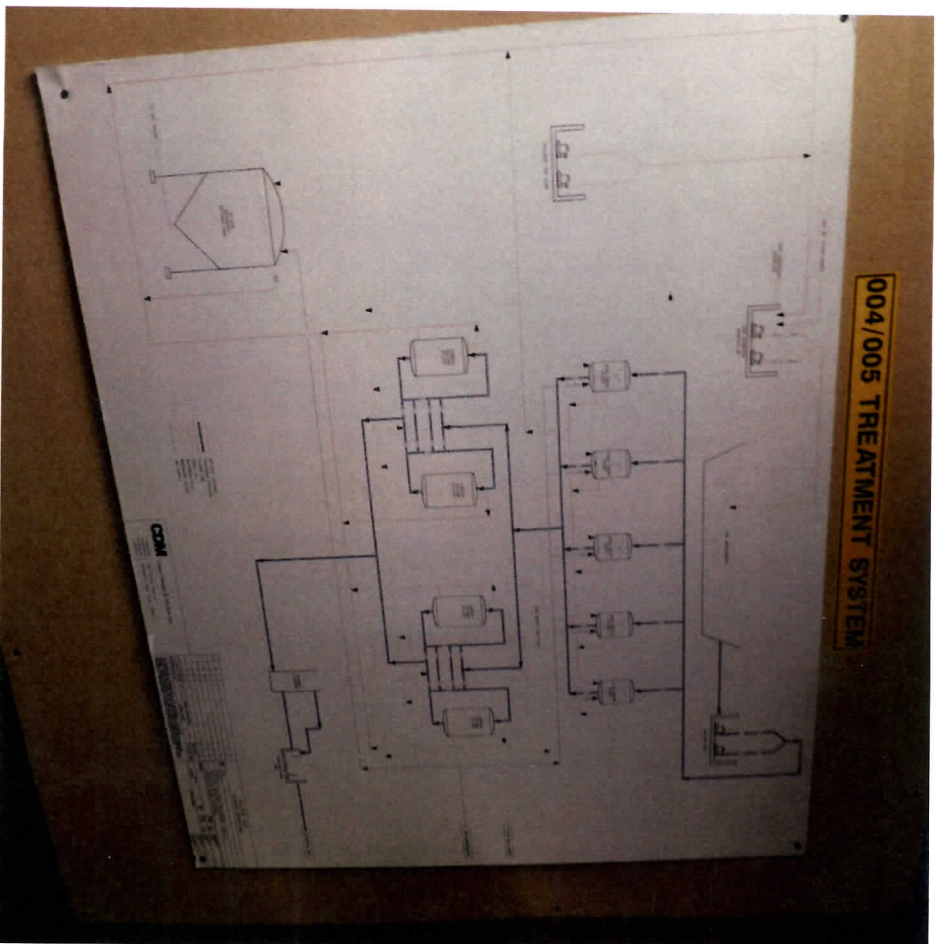
DSCN4866 – Material storage pile in ROPS area pile to be used for fill for cover material by remedial group



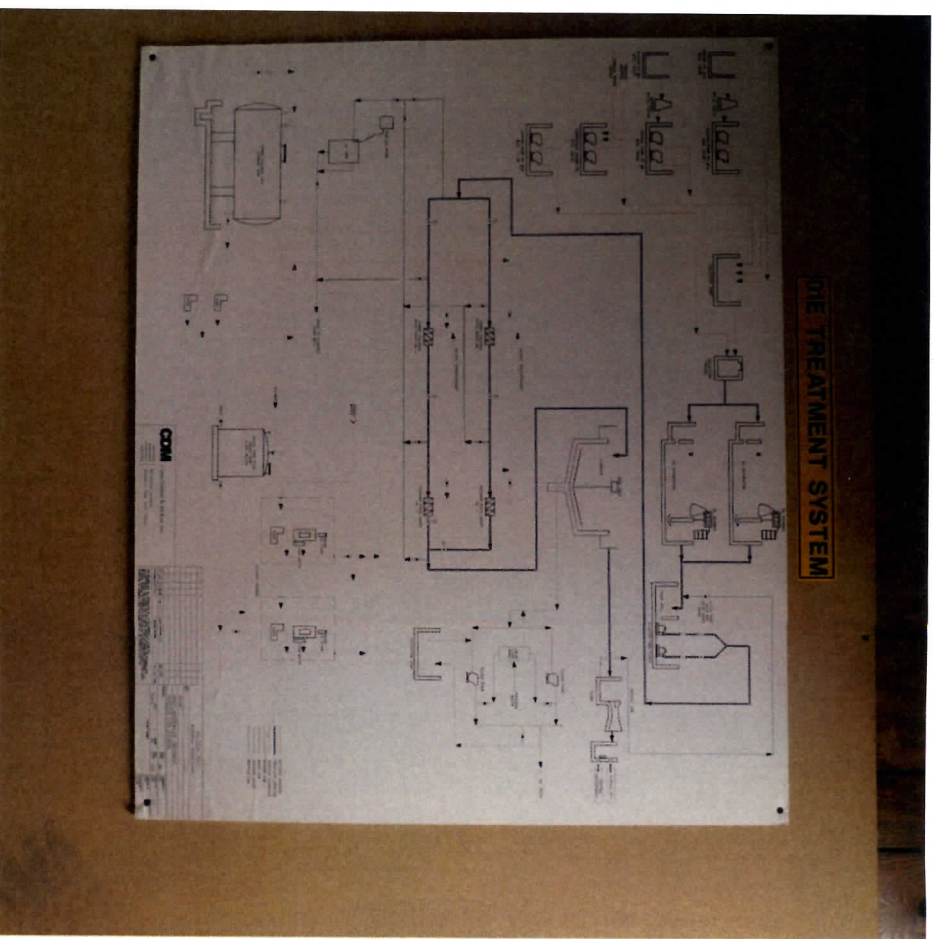
DSCN4867 – 01F Treatment System



DSCN4868 – 01A Treatment System



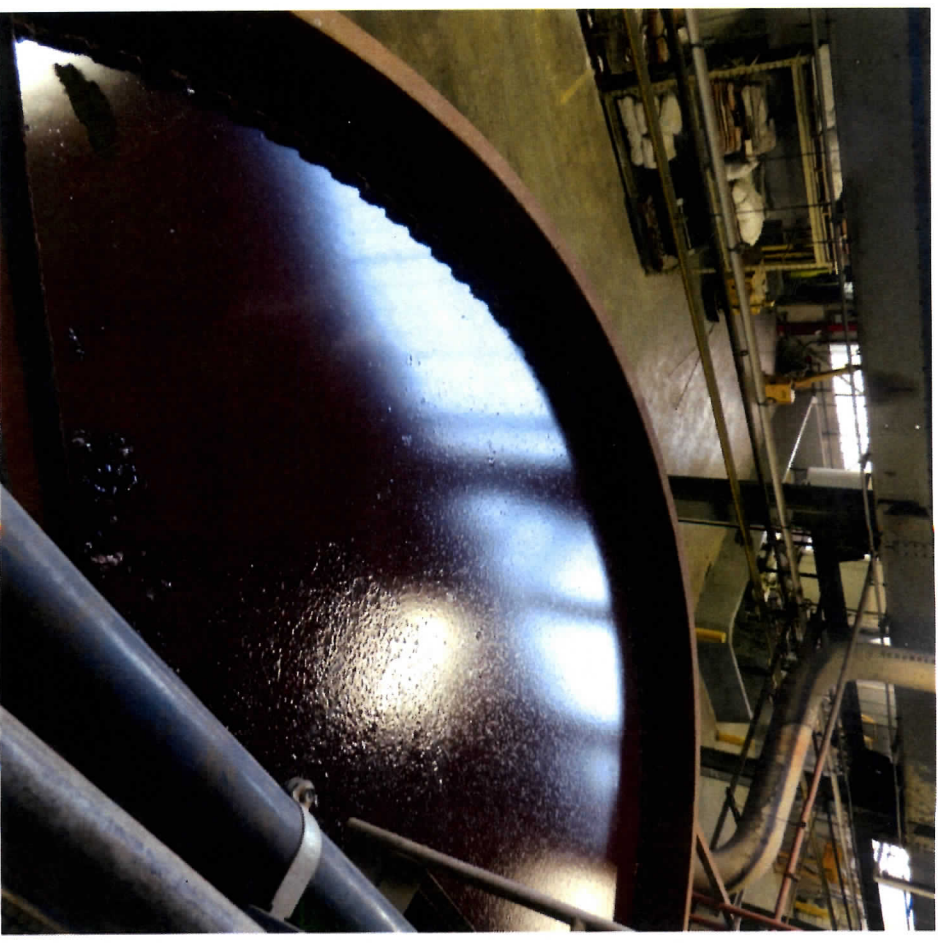
DSCN4869 – 004/005 Treatment System



DSCN4870 – 01 E Treatment System



DSCN4871 – Clarifier prior to 01F



DSCN4872 - Clarifier prior to 01F - off



DSCN4873



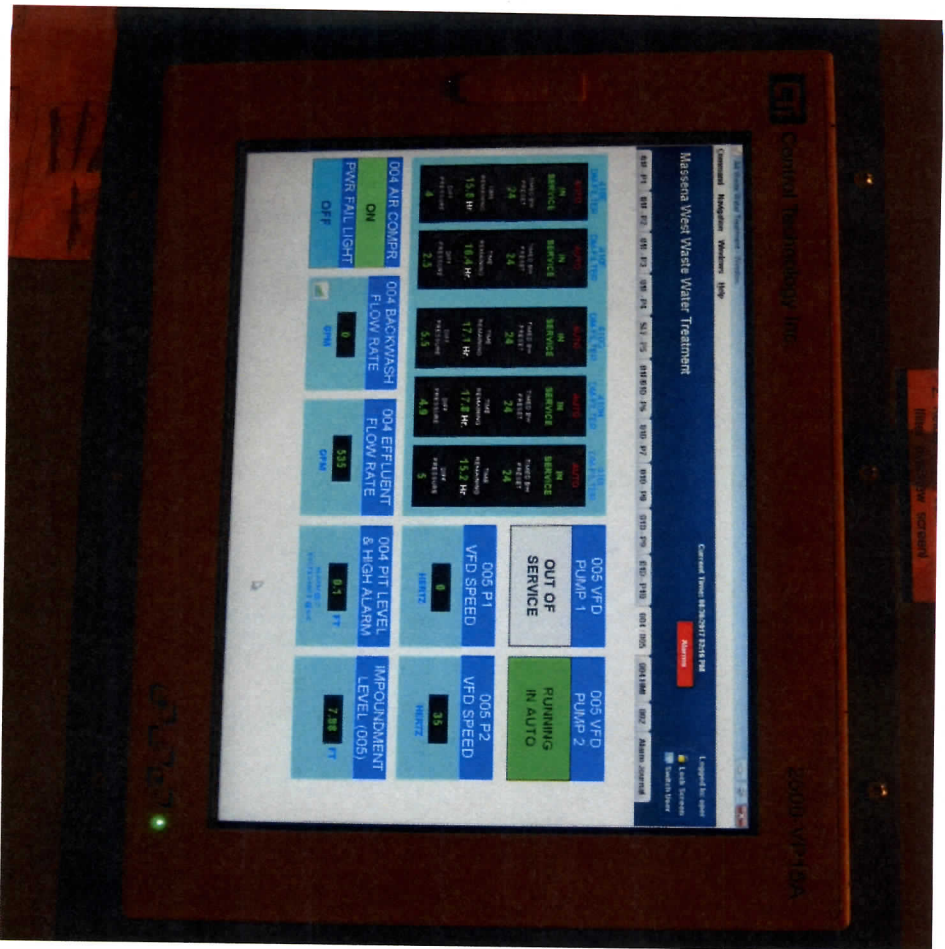
DSCN4874



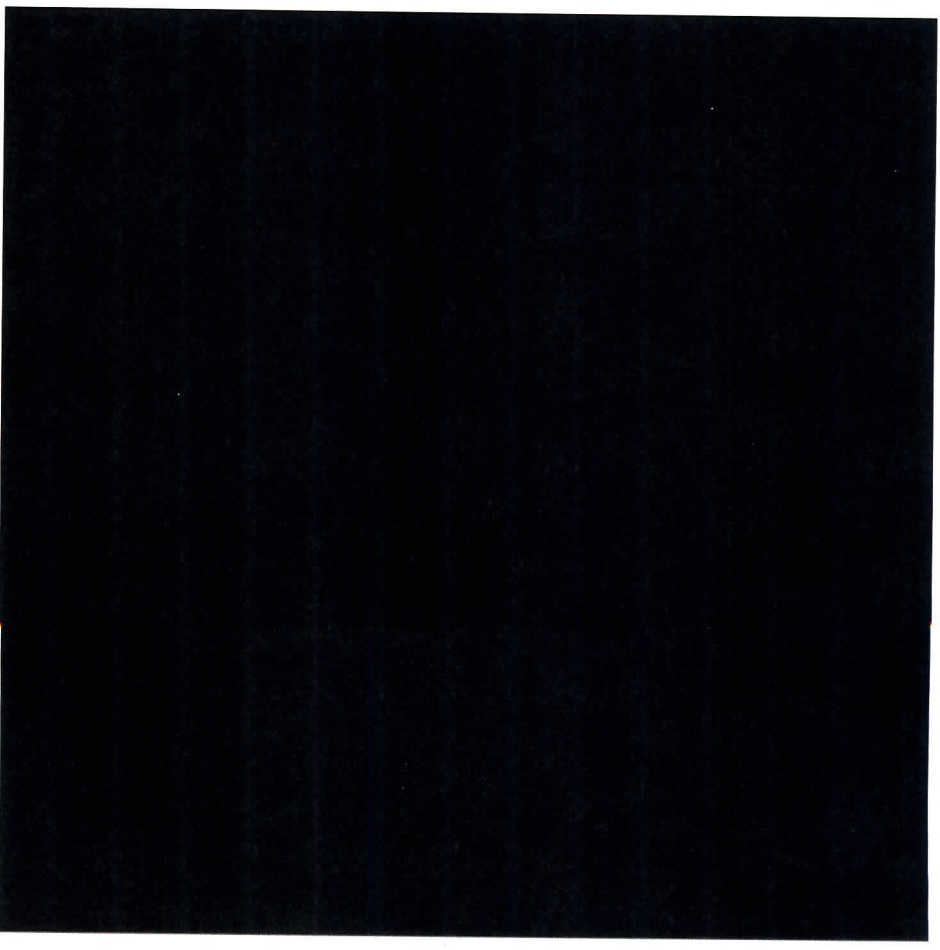
DSCN4875



DSCN4876



DSCN4877 – 004 and 005 display



DSCN4878



DSCN4879 – Outfall 007 - 4.5' H Flume No Discharge



DSCN4880 – Outfall 007 - 4.5' H Flume No Discharge



DSCN4881 - Outfall 007 - 4.5' H Flume No Discharge



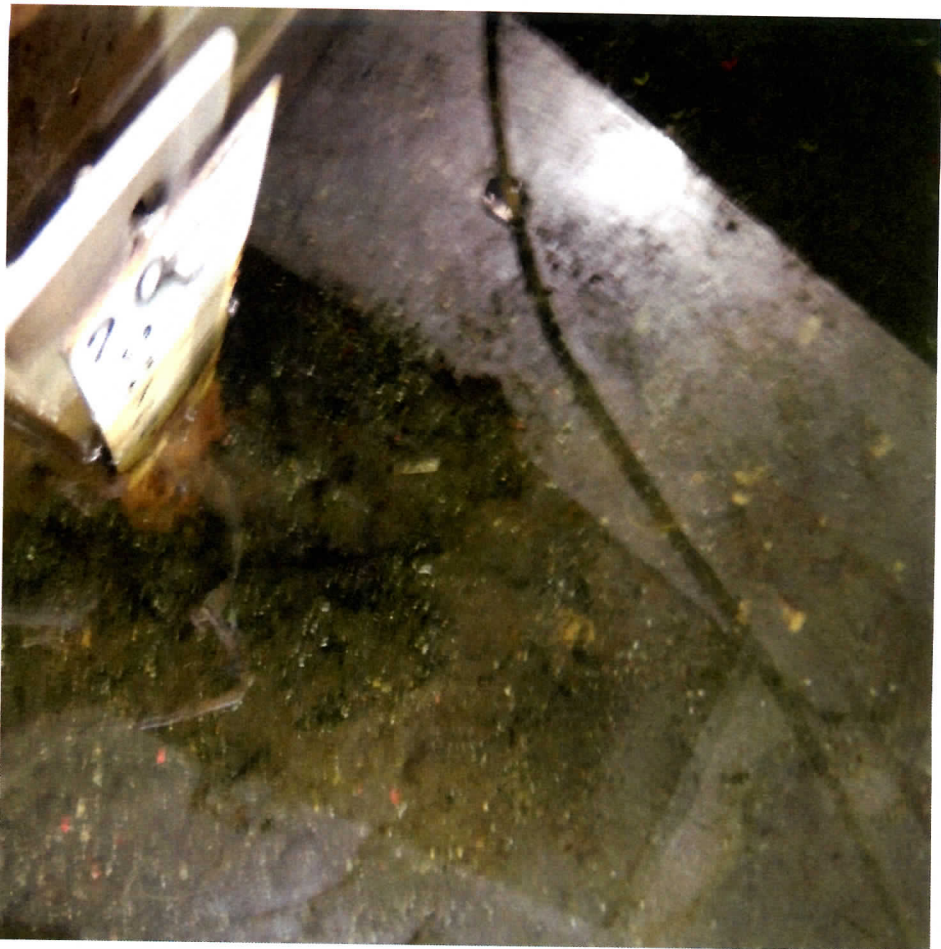
DSCN4882 – 004/005 impoundment



DSCN4883 – 004/005 impoundment



DSCN4884 – 004/005 impoundment.



DSCN4885 – Outfall 01G- Bldg 140. sediment  
accumulated in need of cleaning



DSCN4886 – Outfall 01I sampler



DSCN4887 – Outfall 011



DSCN4888 – Pot Pile A Pump Station



DSCN4889 – pot pile A



DSCN4890 – pot pile A



DSCN4891 pot pile A collection tank



DSCN4892 – pipe feeding the area III impoundment with an underflow.



DSCN4893 – Outfall 008 Palmer Bowlus Flume



DSCN4894 - Outfall 008 Palmer Bowlus Flume



DSCN4895 – stilling well for flow measurement at Outfall 008



DSCN4896 – Area III Pond Influent



DSCN4897 – dead frog area III impoundment.



DSCN4898 – Outfall 03A flow meter



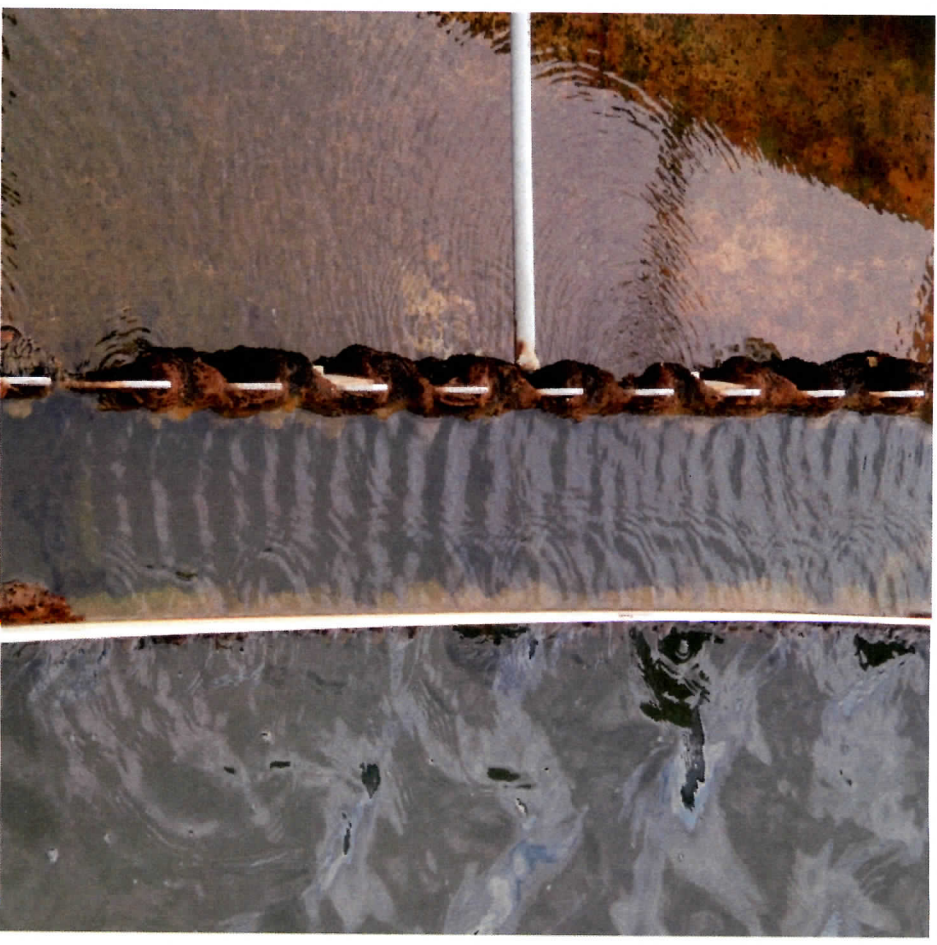
DSCN4899 – Bldg. 221, Ingot WWTP – 01E



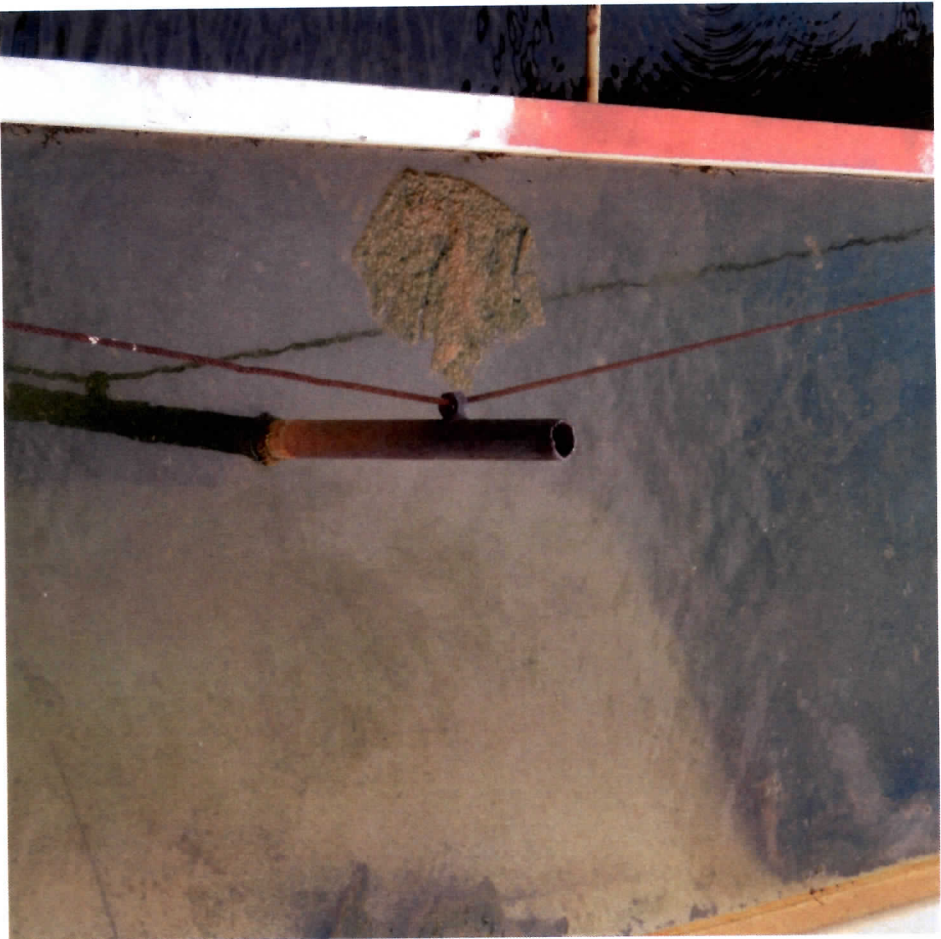
DSCN4900 – 01E composite sampler



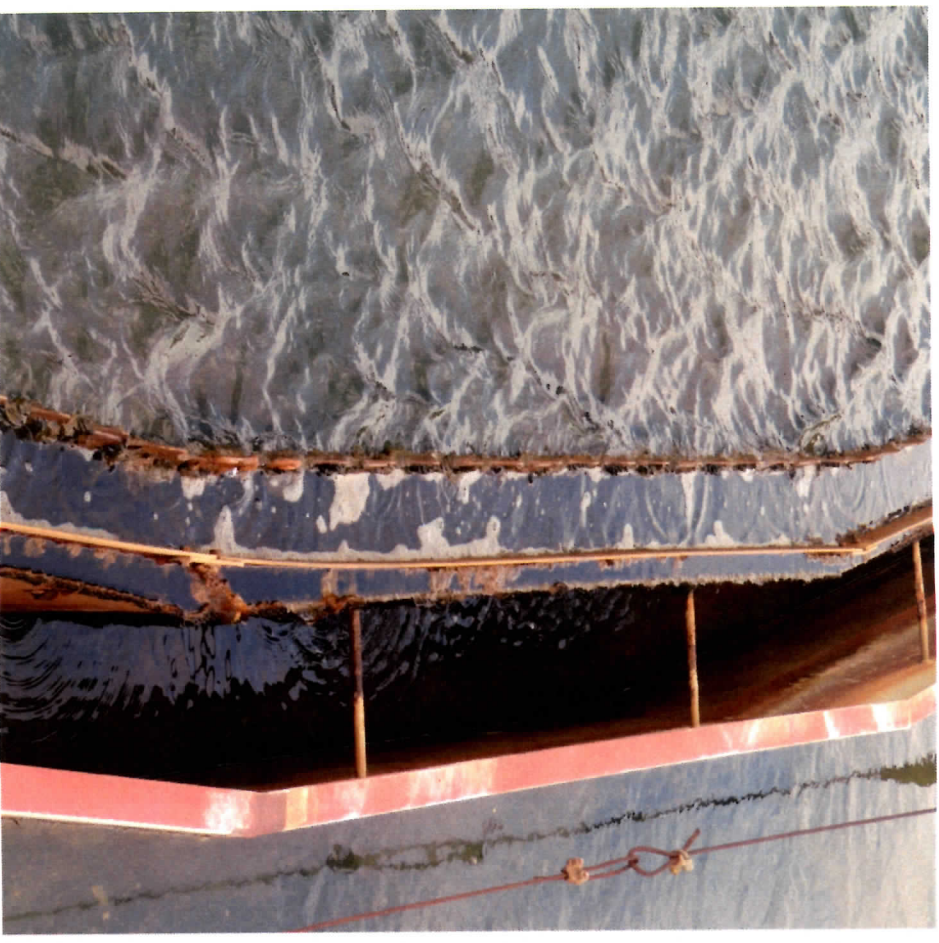
DSCN4901 – 01E Bubbler Flow Recorder



DSCN4902 – 01E clarifier, weirs have growth on them



DSCN4903 – floating material on 01E clarifier



DSCN4904 – floating material/growth on weirs 01E clarifier



DSCN4905



DSCN4906



DSCN4907 – Bldg 221 P



DSCN4908 – material storage piles



DSCN4909 – material storage pile



DSCN4910 – unprotected material storage pile



DSCN4911 – remedial group cover soil – tarp not fully covering soil



DSCN4912 – remedial group cover soil – tarp not fully covering soil

# Sample Distribution

**CAS** → PAHs (unpolluted), D-Hg, Fluoride, TDS, TSS, Total Cyanide, Metals, TKN, Ammonia, Phenols  
 (collected) → <sup>675</sup> <sub>675</sub> BOD5 (except if collected on Wed),  
 Settles (Cakes)  
**ALPHAT** → CBOS, MEAS, PCB COB, 80824, Wipes  
 TA PHTS → Free Cyanide  
 PACS → PCB oil, PCB components, Endothal 11  
 (NEAS) → Coating  
**LSL** → Settles (truss), Fecal Coliform, Colitag  
**Lab** →  
 Element One - 1000  
 Port 001111 (COC's)  
 on Legal 0120

DSCN4913 – Sample Distribution to Labs

Discharge Table with Head in Feet (continued)

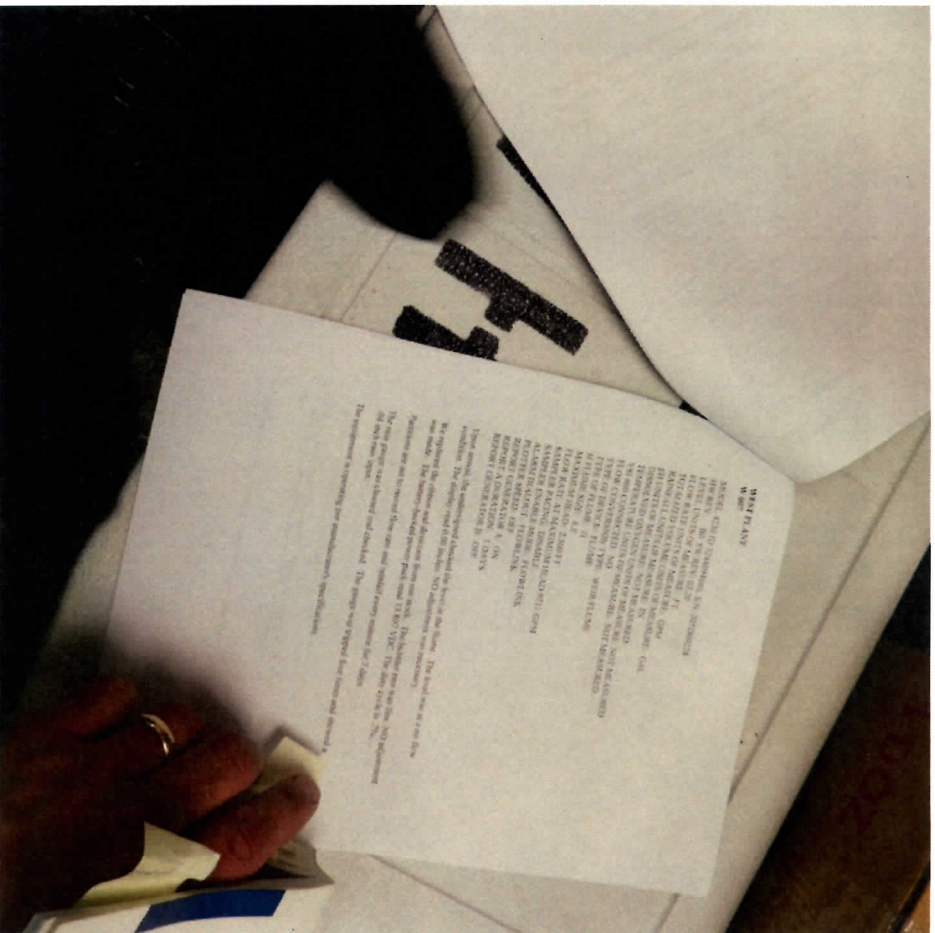
Table 16-12  
4.5' H Flume Discharge Table with Head in Feet

Source: USBR, Handbook No. 274

Head (feet)	CFS	GPM	MGD	Head (feet)	CFS	GPM	MGD
1.00	1.00	7.48	0.000	10.00	100.0	748.0	0.000
1.05	1.05	7.85	0.000	10.05	100.5	749.0	0.000
1.10	1.10	8.22	0.000	10.10	101.0	750.0	0.000
1.15	1.15	8.59	0.000	10.15	101.5	751.0	0.000
1.20	1.20	8.96	0.000	10.20	102.0	752.0	0.000
1.25	1.25	9.33	0.000	10.25	102.5	753.0	0.000
1.30	1.30	9.70	0.000	10.30	103.0	754.0	0.000
1.35	1.35	10.07	0.000	10.35	103.5	755.0	0.000
1.40	1.40	10.44	0.000	10.40	104.0	756.0	0.000
1.45	1.45	10.81	0.000	10.45	104.5	757.0	0.000
1.50	1.50	11.18	0.000	10.50	105.0	758.0	0.000
1.55	1.55	11.55	0.000	10.55	105.5	759.0	0.000
1.60	1.60	11.92	0.000	10.60	106.0	760.0	0.000
1.65	1.65	12.29	0.000	10.65	106.5	761.0	0.000
1.70	1.70	12.66	0.000	10.70	107.0	762.0	0.000
1.75	1.75	13.03	0.000	10.75	107.5	763.0	0.000
1.80	1.80	13.40	0.000	10.80	108.0	764.0	0.000
1.85	1.85	13.77	0.000	10.85	108.5	765.0	0.000
1.90	1.90	14.14	0.000	10.90	109.0	766.0	0.000
1.95	1.95	14.51	0.000	10.95	109.5	767.0	0.000
2.00	2.00	14.88	0.000	11.00	110.0	768.0	0.000
2.05	2.05	15.25	0.000	11.05	110.5	769.0	0.000
2.10	2.10	15.62	0.000	11.10	111.0	770.0	0.000
2.15	2.15	15.99	0.000	11.15	111.5	771.0	0.000
2.20	2.20	16.36	0.000	11.20	112.0	772.0	0.000
2.25	2.25	16.73	0.000	11.25	112.5	773.0	0.000
2.30	2.30	17.10	0.000	11.30	113.0	774.0	0.000
2.35	2.35	17.47	0.000	11.35	113.5	775.0	0.000
2.40	2.40	17.84	0.000	11.40	114.0	776.0	0.000
2.45	2.45	18.21	0.000	11.45	114.5	777.0	0.000
2.50	2.50	18.58	0.000	11.50	115.0	778.0	0.000
2.55	2.55	18.95	0.000	11.55	115.5	779.0	0.000
2.60	2.60	19.32	0.000	11.60	116.0	780.0	0.000
2.65	2.65	19.69	0.000	11.65	116.5	781.0	0.000
2.70	2.70	20.06	0.000	11.70	117.0	782.0	0.000
2.75	2.75	20.43	0.000	11.75	117.5	783.0	0.000
2.80	2.80	20.80	0.000	11.80	118.0	784.0	0.000
2.85	2.85	21.17	0.000	11.85	118.5	785.0	0.000
2.90	2.90	21.54	0.000	11.90	119.0	786.0	0.000
2.95	2.95	21.91	0.000	11.95	119.5	787.0	0.000
3.00	3.00	22.28	0.000	12.00	120.0	788.0	0.000
3.05	3.05	22.65	0.000	12.05	120.5	789.0	0.000
3.10	3.10	23.02	0.000	12.10	121.0	790.0	0.000
3.15	3.15	23.39	0.000	12.15	121.5	791.0	0.000
3.20	3.20	23.76	0.000	12.20	122.0	792.0	0.000
3.25	3.25	24.13	0.000	12.25	122.5	793.0	0.000
3.30	3.30	24.50	0.000	12.30	123.0	794.0	0.000
3.35	3.35	24.87	0.000	12.35	123.5	795.0	0.000
3.40	3.40	25.24	0.000	12.40	124.0	796.0	0.000
3.45	3.45	25.61	0.000	12.45	124.5	797.0	0.000
3.50	3.50	25.98	0.000	12.50	125.0	798.0	0.000
3.55	3.55	26.35	0.000	12.55	125.5	799.0	0.000
3.60	3.60	26.72	0.000	12.60	126.0	800.0	0.000
3.65	3.65	27.09	0.000	12.65	126.5	801.0	0.000
3.70	3.70	27.46	0.000	12.70	127.0	802.0	0.000
3.75	3.75	27.83	0.000	12.75	127.5	803.0	0.000
3.80	3.80	28.20	0.000	12.80	128.0	804.0	0.000
3.85	3.85	28.57	0.000	12.85	128.5	805.0	0.000
3.90	3.90	28.94	0.000	12.90	129.0	806.0	0.000
3.95	3.95	29.31	0.000	12.95	129.5	807.0	0.000
4.00	4.00	29.68	0.000	13.00	130.0	808.0	0.000
4.05	4.05	30.05	0.000	13.05	130.5	809.0	0.000
4.10	4.10	30.42	0.000	13.10	131.0	810.0	0.000
4.15	4.15	30.79	0.000	13.15	131.5	811.0	0.000
4.20	4.20	31.16	0.000	13.20	132.0	812.0	0.000
4.25	4.25	31.53	0.000	13.25	132.5	813.0	0.000
4.30	4.30	31.90	0.000	13.30	133.0	814.0	0.000
4.35	4.35	32.27	0.000	13.35	133.5	815.0	0.000
4.40	4.40	32.64	0.000	13.40	134.0	816.0	0.000
4.45	4.45	33.01	0.000	13.45	134.5	817.0	0.000
4.50	4.50	33.38	0.000	13.50	135.0	818.0	0.000
4.55	4.55	33.75	0.000	13.55	135.5	819.0	0.000
4.60	4.60	34.12	0.000	13.60	136.0	820.0	0.000
4.65	4.65	34.49	0.000	13.65	136.5	821.0	0.000
4.70	4.70	34.86	0.000	13.70	137.0	822.0	0.000
4.75	4.75	35.23	0.000	13.75	137.5	823.0	0.000
4.80	4.80	35.60	0.000	13.80	138.0	824.0	0.000
4.85	4.85	35.97	0.000	13.85	138.5	825.0	0.000
4.90	4.90	36.34	0.000	13.90	139.0	826.0	0.000
4.95	4.95	36.71	0.000	13.95	139.5	827.0	0.000
5.00	5.00	37.08	0.000	14.00	140.0	828.0	0.000

16

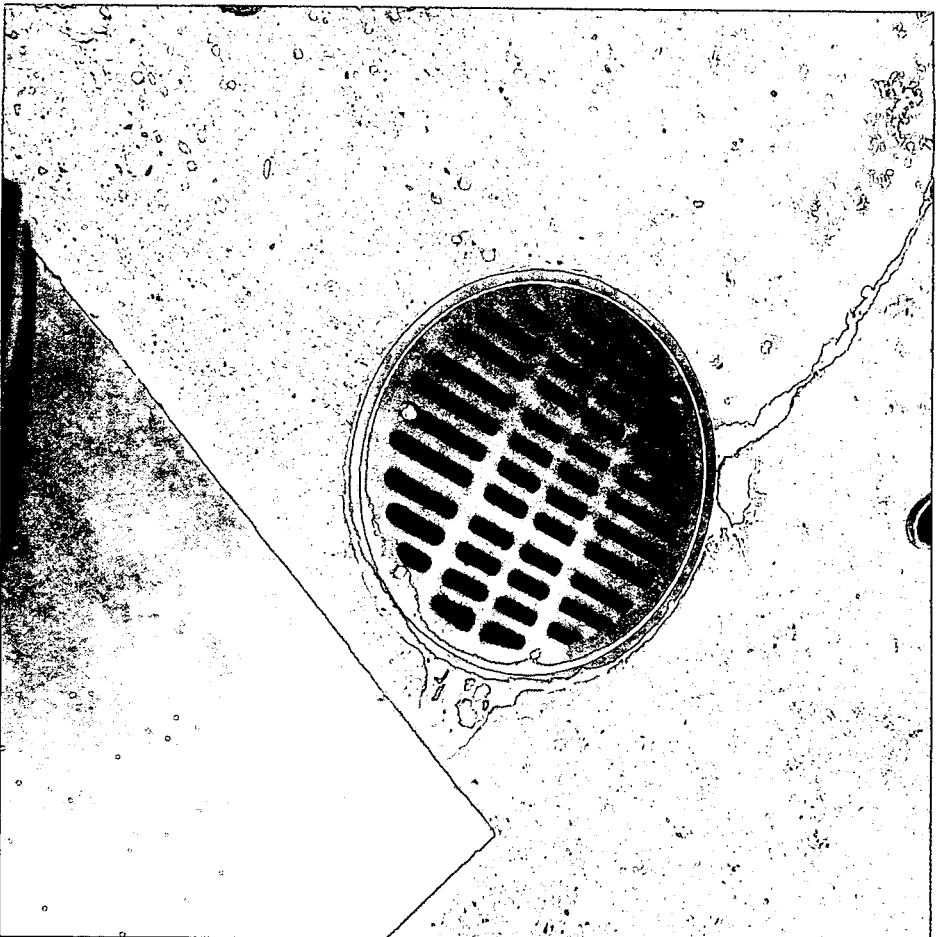
DSCN4914 – Flow Table for 4.5' H Flume



## DSCN4915- Flow Monitoring Information for Outfall 007



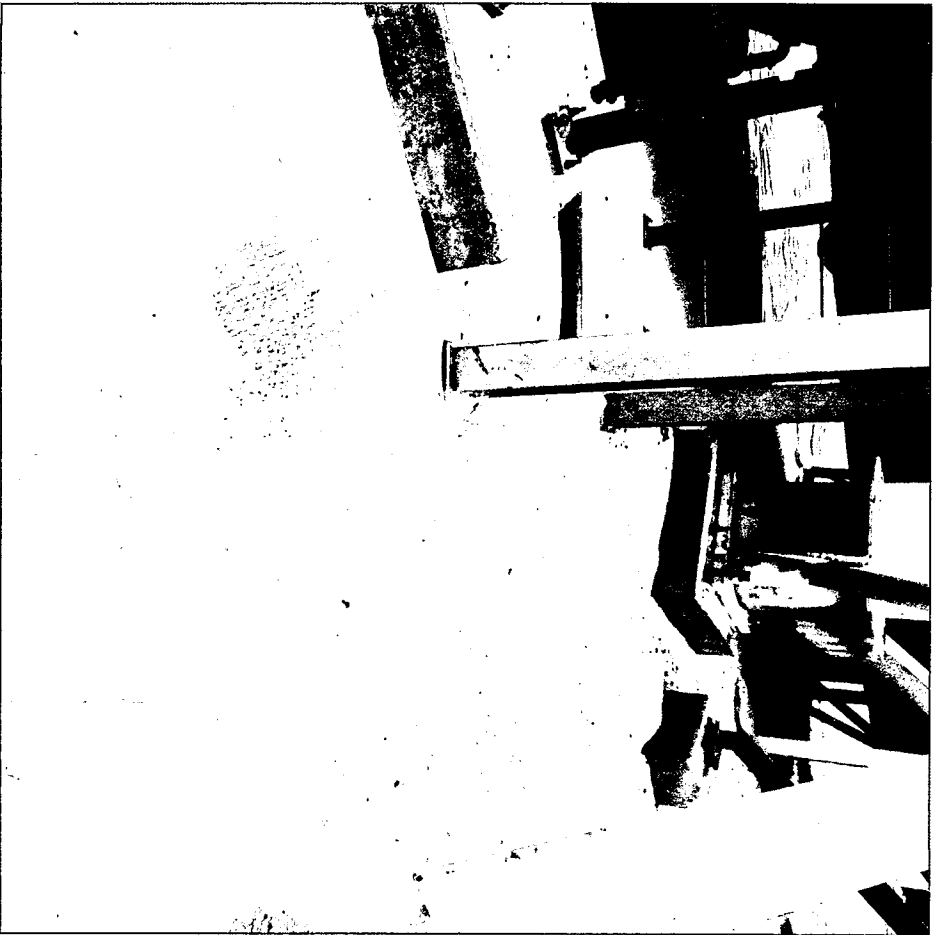
DSCN4916 – Alumina Dust near pot line at the southern end of Alcoa courtyard



DSCN4917 – stormwater inlet at pot line – where stormwater runoff containing Alumina could flow into.



DSCN4918 – Alumina dust on ground at Alcoa pot line.



DSCN4919 – reacted alumina on ground below air lift



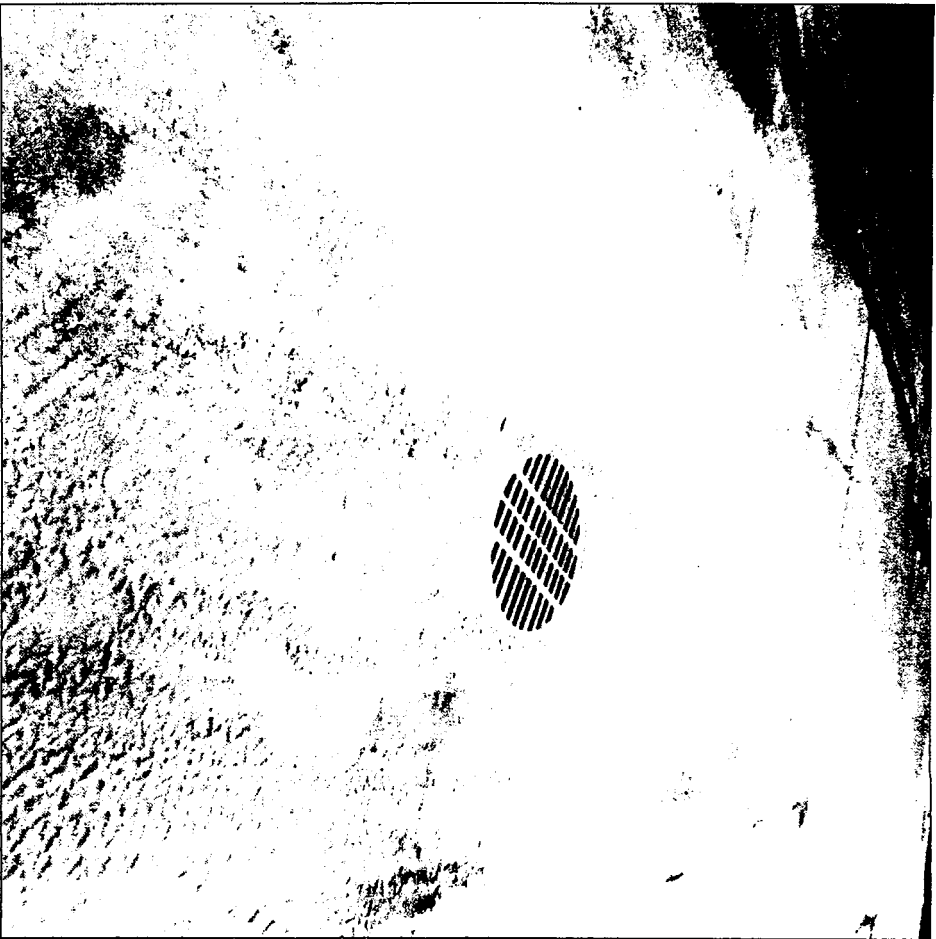
DSCN4920 - reacted alumina on ground below air lift



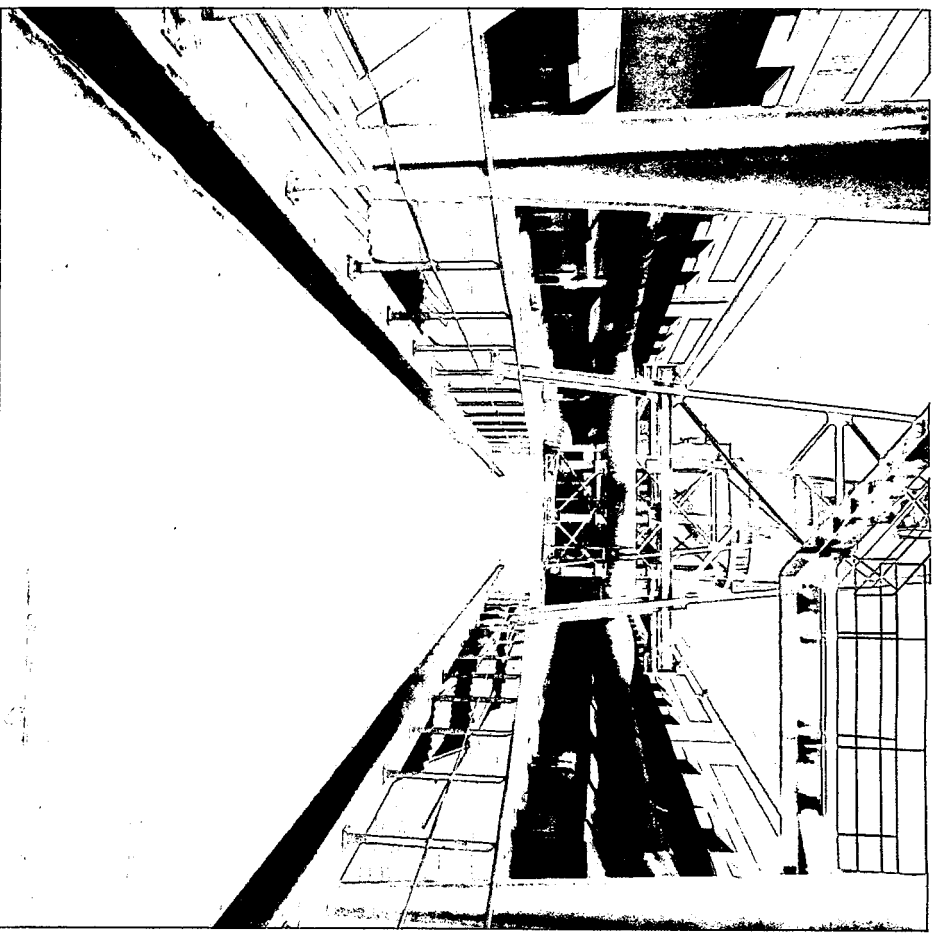
DSCN4921 – air slide leakage - alumina dust coming from building



DSCN4922 – alumina dust on ground of courtyard



DSCN4923 – Alumina dust around stormwater inlet.



DSCN4924 – Alcoa pot line courtyard – Alumina Dust Seen

ATTACHMENT 1.B - Arconic/Alcoa West Plant  
Massena NY SPDES Permit NY0001732  
Unedited Digital Photos, August 30 to September 1,  
2017 by Peter Bahor USEPA HQ



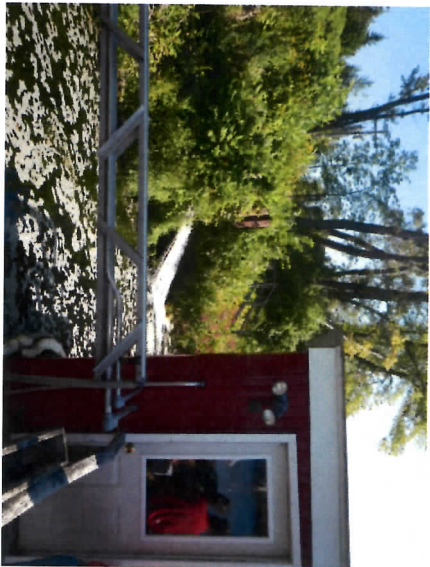
Arconic – Massena Operations - DSCN0164



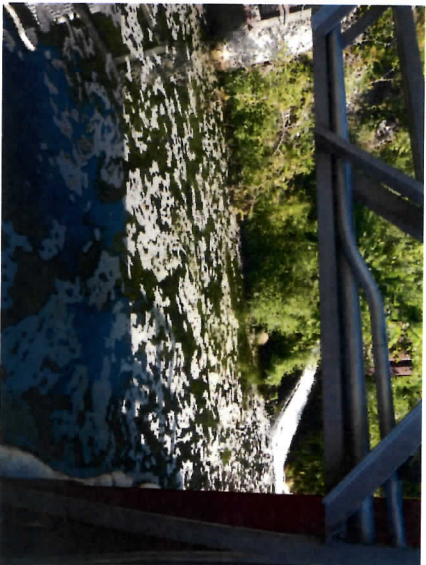
Outfall 004 not accessed – asbestos removal - DSCN0165



Outfall 004– asbestos removal - DSCN0166



Outfall 001 - DSCN0167



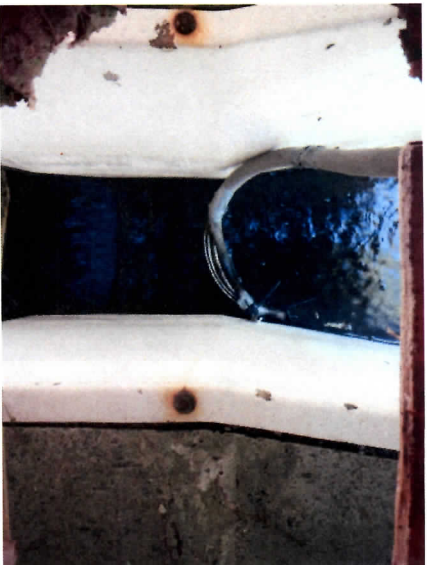
Outfall 001 - DSCN0169



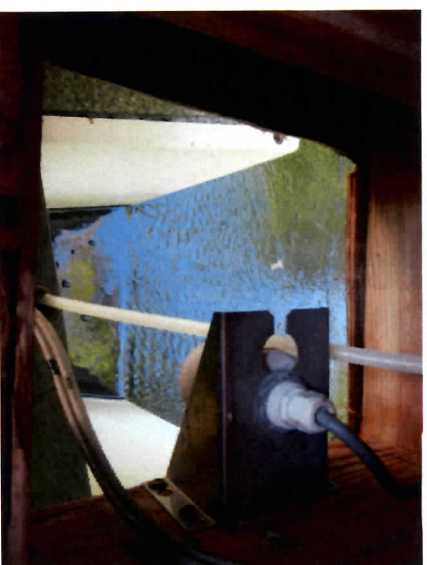
Outfall 001 w/staff guage - DSCN0168



Outfall 001 - w/oil boom - DSCN0170



DSCN0171



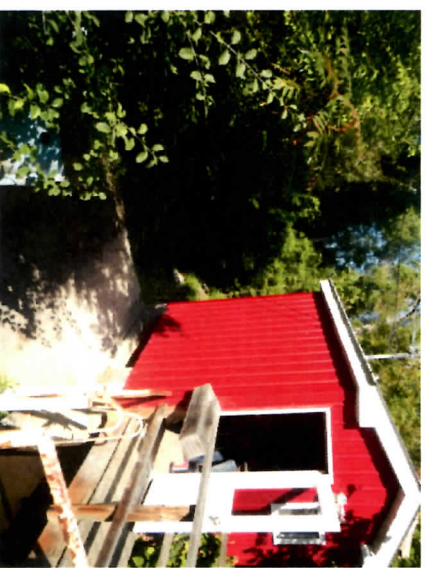
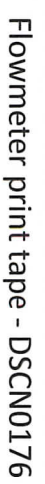
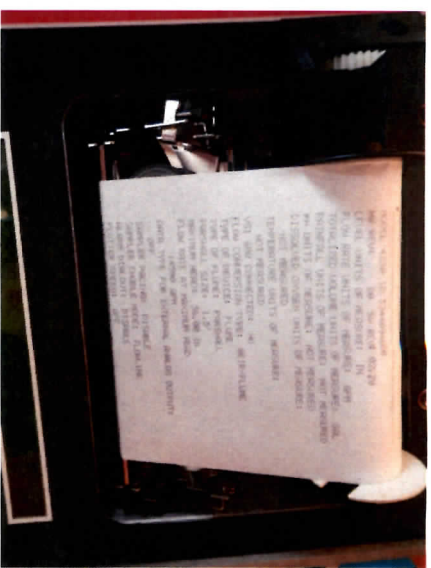
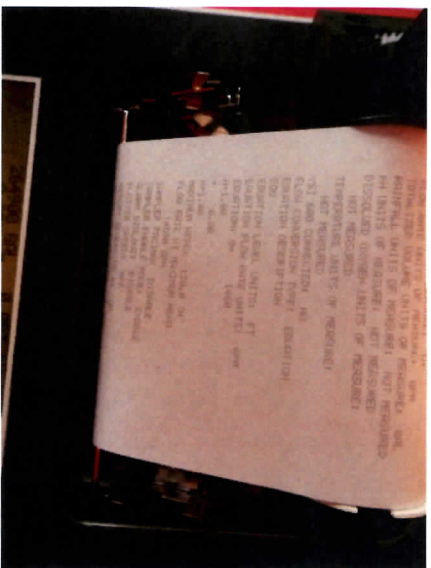
Flowmeter Doppler Head - DSCN0172



DSCN0173

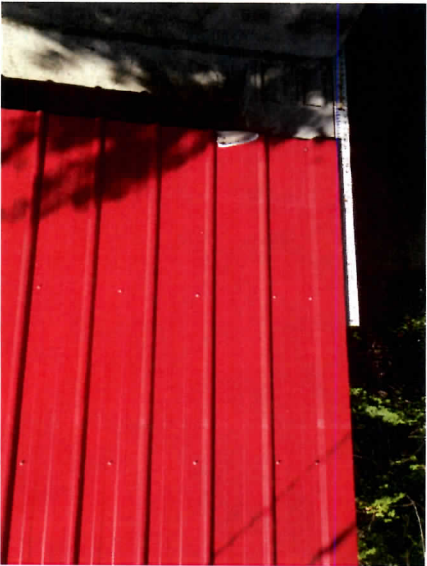


Flowmeter recorders - DSCN0174





DSCN0179



DSCN0181



DSCN0180



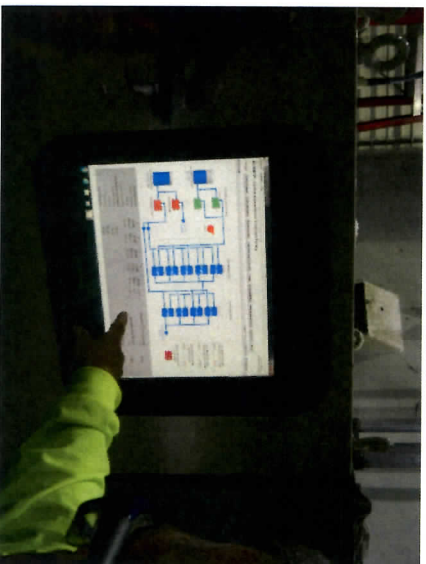
Picture/Birds Eye View Arconic/Alcoa West Plant - DSCN0182



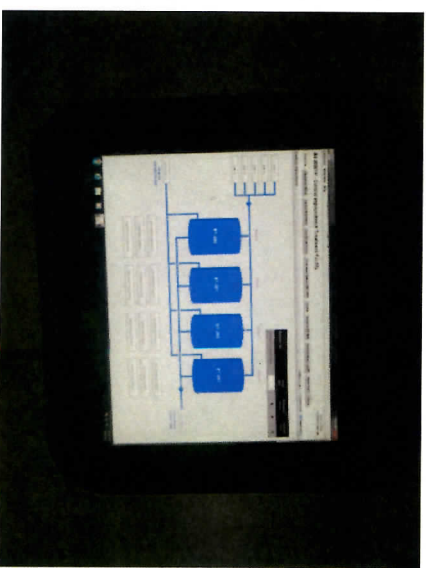
DSCN0183



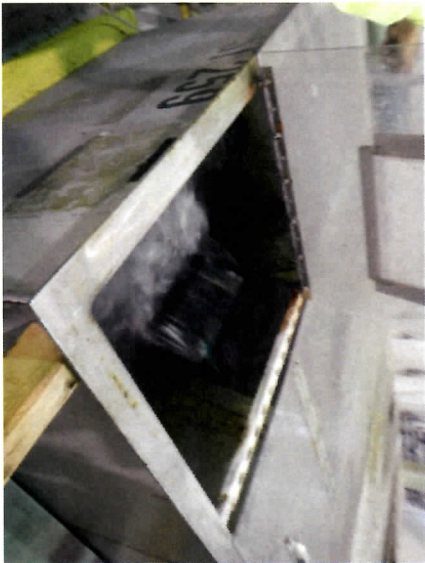
DSCN0184



DSCN0185



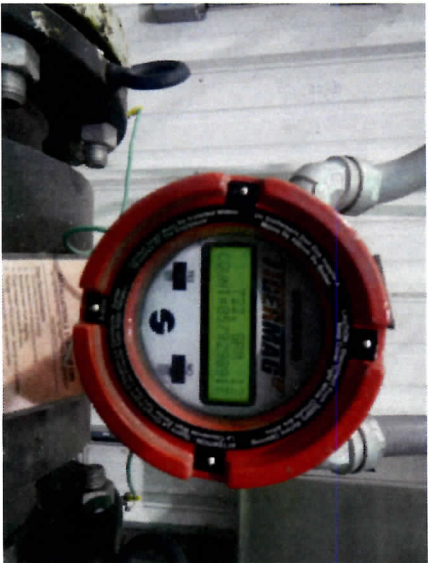
DSCN0186



DSCN0187



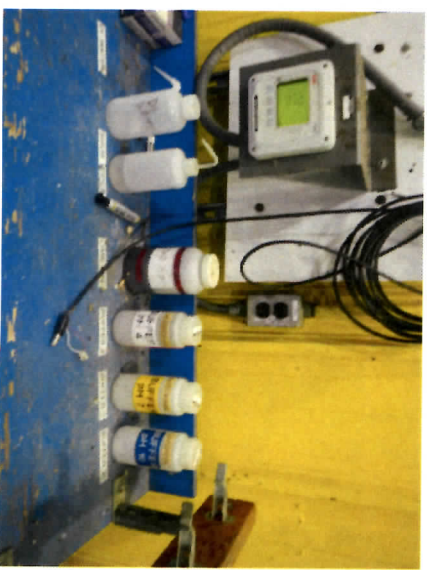
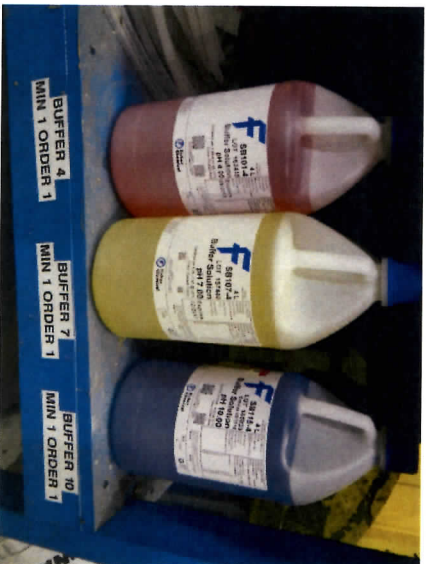
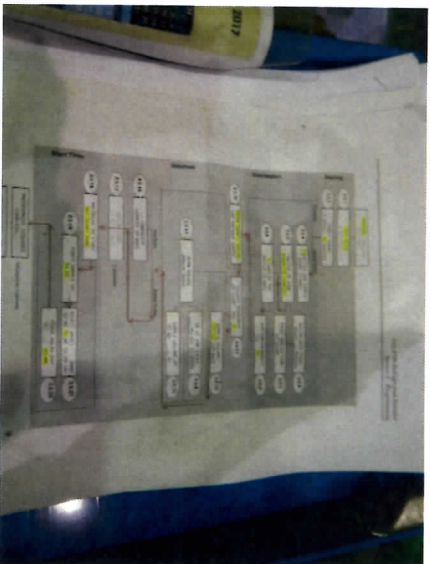
DSCN0188



DSCN0189



DSCN0190





DSCN0195



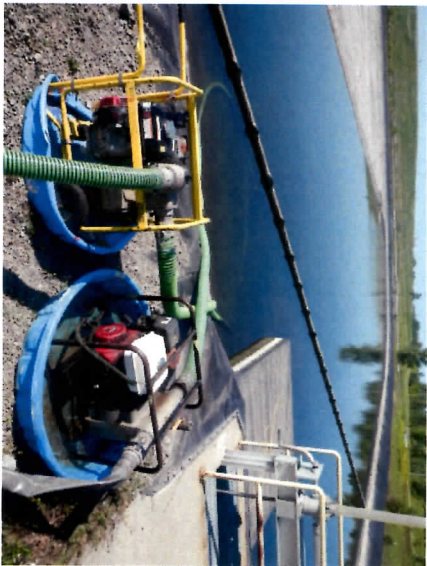
DSCN0197



DSCN0196



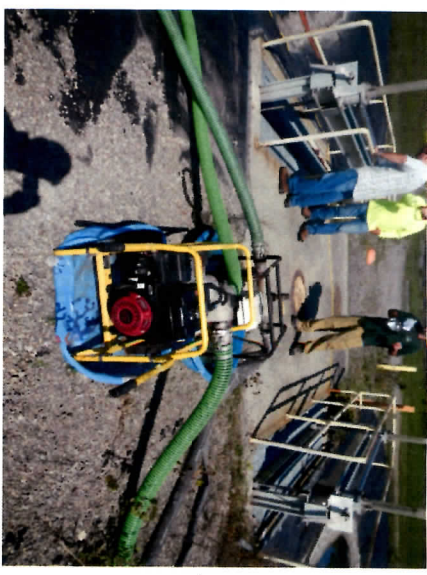
DSCN0198



DSCN0199



Cleaning out of Cell of Central Impoundment- DSCN0201



DSCN0200



Aluminum Product - DSCN0202



Silt Fence not maintained - DSCN0203



Silt Fence not maintained - DSCN0204



Silt Fence Not Maintained - DSCN0205



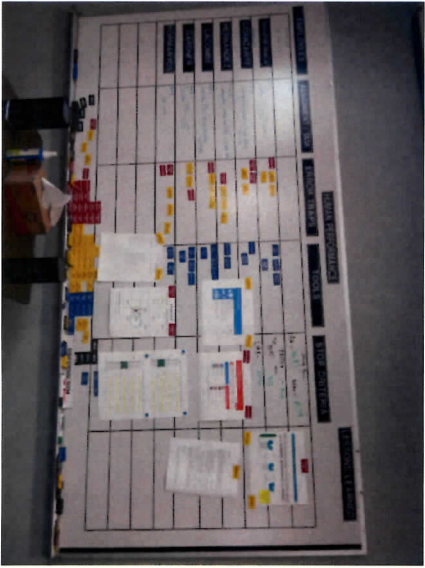
Silt Fence not maintained - DSCN0206



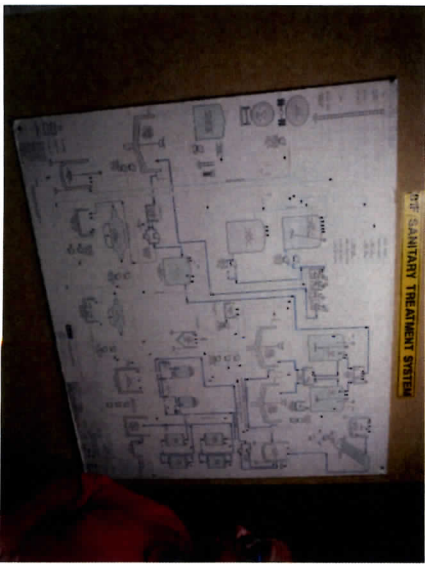
DSCN0207



DSCN0208



DSCN0209



DSCN0210



Used Oil Tanks - DSCN0211



Used Oil Tanks w/drip pan - DSCN0213



Used Oil Tanks - DSCN0212



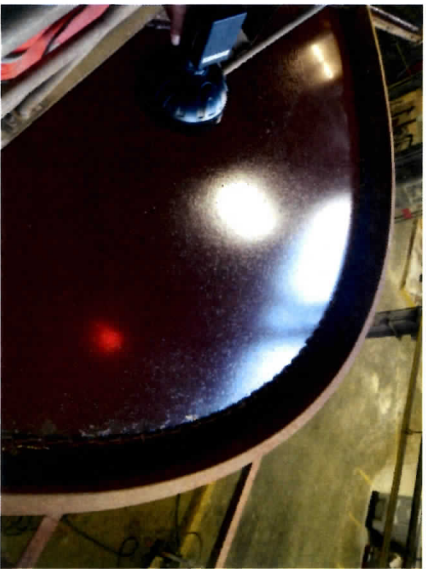
DSCN0214



DSCN0215



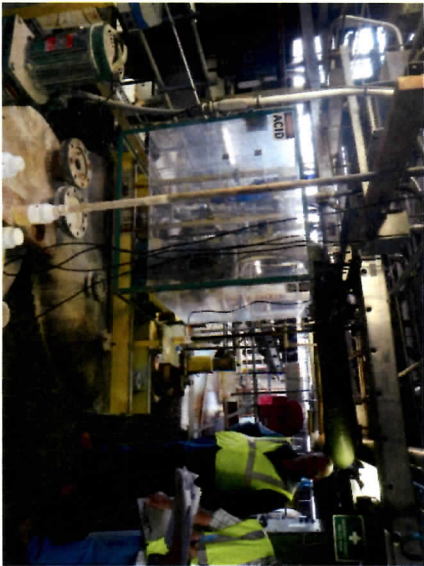
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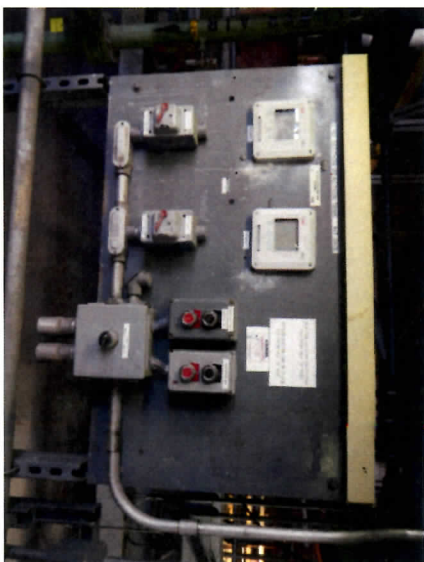
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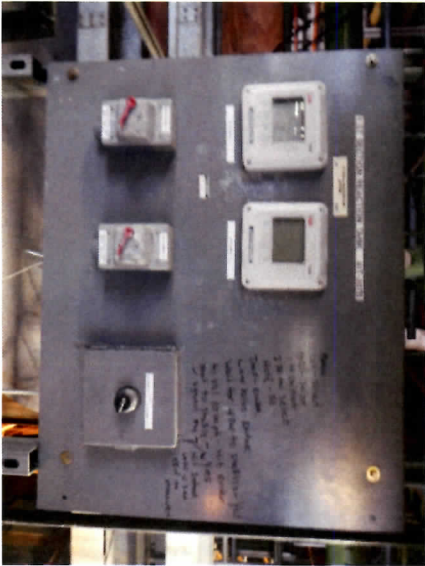
DSCN0218



DSCN0219



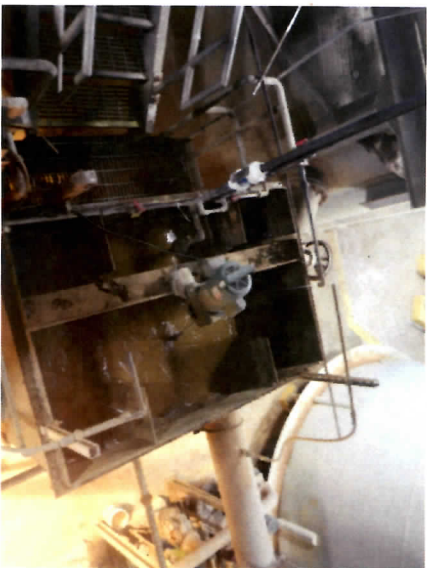
DSCN0221



DSCN0222



DSCN0223



DSCN0224



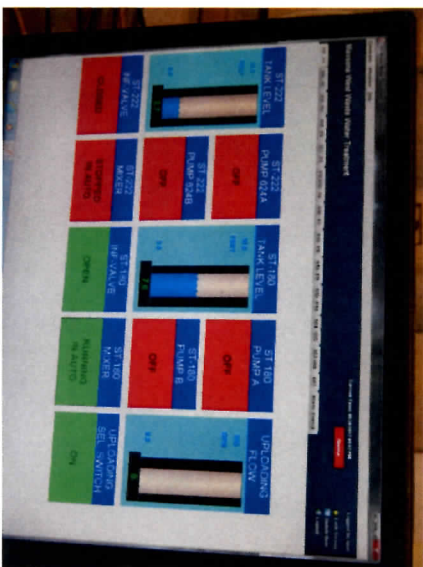
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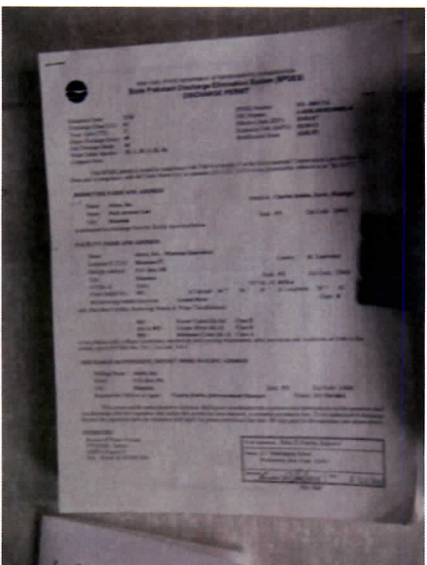
DSCN0227



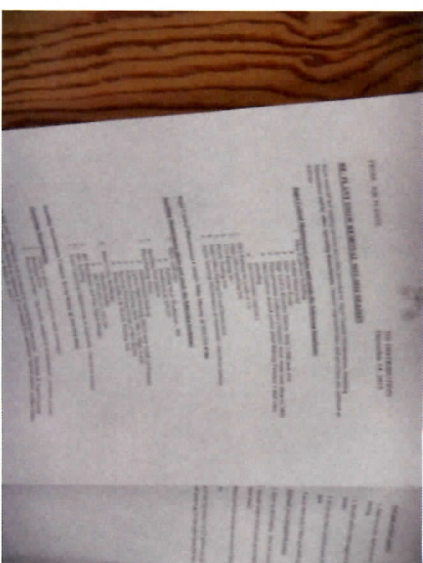
Video Remote Viewing - DSCN0228



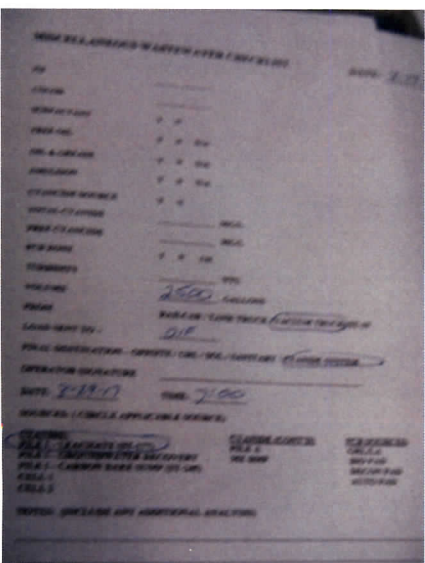
- DSCN0229



DSCN0231



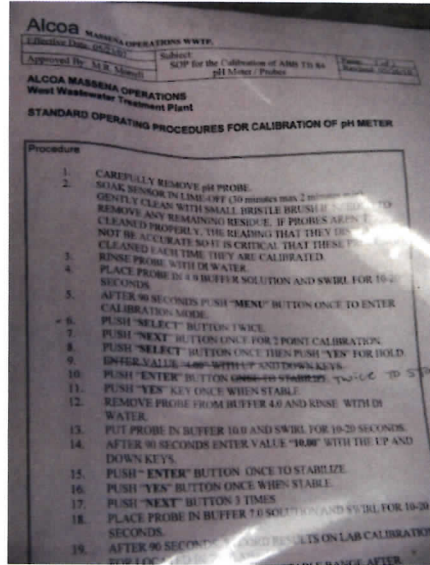
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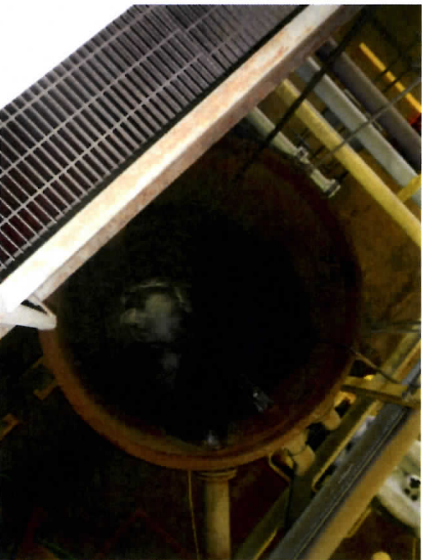
DSCN0232



DSCN0235



DSCN0233



DSCN0236



DSCN0234



DSCN0237

Attachment 2

**New York State Department of Environmental Conservation**  
**Division of Materials Management, Region 6**  
6739 U.S. Highway 11, Potsdam, New York 13676  
**Phone:** (315) 265-3090 • **Fax:** (315) 265-2513  
**Website:** [www.dec.ny.gov](http://www.dec.ny.gov)



Joe Martens  
Commissioner

Via email: [Tim.Long@alcoa.com](mailto:Tim.Long@alcoa.com)

January 8, 2013

Mr. Timothy Long  
Senior Environmental Engineer  
Alcoa Massena Operations  
PO Box 150  
Massena, NY 13662-0150

RE: SPEDES PERMIT NY# 0001732 ALCOA MASSENA WEST  
WASTE WATER MANAGEMENT PLAN UPDATE

Dear Mr. Long:

I have received and reviewed your letter dated December 11, 2012 regarding the updates to the Waste water management plans. In the update you identify that the overflow from the sanitary equalization tank during wet weather events and 01D outages is sent to the 01A treatment system. The update is acceptable.

If you have any questions, please feel free to give me a call.

Sincerely,

Jennifer Lauzon  
Environmental Engineer II

cc: Steve Botsford, NYSDEC  
Benjamin Girtain Plowe, NYSDEC – BWP

## ALCOA WEST PLANT – SPDES # NY0001732

### 1. Wastewater Treatment Building 79C:

- **Outfall 01B Treatment System** – Treatment of plant generated O & G waters. Treatment consists of multiple storage tanks, filtration, oil/water separation and ultrafiltration.
- **Outfall 01D Treatment System** – Treats sanitary wastewaters, discharges from Outfalls 01B, 01D and 01F, treatment consists of activated sludge, clarification and dual media filtration and carbon adsorption columns, disinfection.
- **Outfall 01F Treatment System** – Treats cyanide and fluoride contaminated wastewaters via lime addition, sulfuric acid, ferrous sulfate, polymer addition and clarifier settling.

### 2. Central Impoundment Treatment Facility (CITF):

- **Outfall 01A Treatment System** – Treats storm water and process waters from Area I and Area II, Area III, O /W separation, settling, dual media filtration and carbon adsorption.

### 3. Outfall 004 Treatment Facility

- **Outfall 004 Treatment System** - Treats mainly storm waters from the 005 Impoundment and the system consists of settling, dual media filtration and carbon adsorption.

### The following steps will be taken in regard to pick up and delivery of waters to the treatment plant:

1. The vacuum truck operator or other transporter will identify the source / location of the water and note if a visible oily sheen is, or is not, present during the collection of this water.
2. Based on experience and years of characterization of plant and remedial sources, the following list is for sources and the applicable wastewater treatment system:

#### **Miscellaneous waters from cyanide sources for treatment at 01F**

Potlining Pile I Leachate

Potlining Pile I Groundwater Recovery System

ST-245 Carbon Bake Sump

Secure Landfill Cell 1 & 2

Potlining Pile-A Groundwater Recovery System

East Plant Black Mud Pond and Landfill related waters

Chemical Laboratory

**Identification of Miscellaneous waters for treatment at 01D or 01A :**

- a.) General Refuse Landfill and Landfill Annex leachate
- b.) Experimental Biological Treatment Pad stormwater
- c.) Miscellaneous waters from process waterline leaks or minor construction waters.
- d.) Substation / High Yard containment stormwaters
- e.) Secure Landfill Cell #3
- f.) Dredging waters from Grasse River remediation
- g.) Anode quench waters from green mill
- h.) Reline mixer rinse waters (bag filtered)
- i.) 60 Acre Soil Shelf
- J.) WWTP Laboratory Drains (01D)
- k.) Boiler condensate, cleaning rinse waters
- L.) Overflow from the sanitary equalization tank during wet weather events and 01D outages is sent to the 01A (CITF) treatment system where it will receive settling, dual media filtration and carbon adsorption.

**Identification of Miscellaneous waters for treatment at 01B:**

- a.) Oil storage facility containment waters
- b.) Waters with a associated with petroleum spill clean up
- c.) Waters located in process sumps
- d.) Waters from numerous previously identified sources, such as air compressors blowdown, basement sumps, containment waters w/sheen present, etc.
- e.) Decon room operations

**Identification of Miscellaneous water for treatment at 004:**

- a.) Area I waters from Pump Station 154
  - b.) Cell 3 construction waters
  - c.) Grasse River remediation dredging waters
  - d.) Miscellaneous waters from process waterline leaks or minor construction waters.
- 
- 3. If the water is delivered from an unknown location or if the location waters have not been previously characterized, the water will be sampled and analyzed prior to treatment. Upon review of the results the WWTP supervisor and operator will determine the appropriate treatment system for treatment.
  - 4. All conveyances will be recorded in the Miscellaneous Waste Water Log. The quantity may be estimated as part of this entry and included in the monthly DMR submittal.

5. The operator or contractor responsible for the pickup and delivery of miscellaneous Waste Water shall make all attempts not to transport sediment or other debris with the wastewater. In the event this occurs, the waters should be bag filtered prior to entering the system.

If there are any questions in regard to this procedure, please contact Dan Chin Services Supervisor @764-4901, Tim Long @764-4914, or Jordan Parent @ 764-4737. In the event there are questions or uncertainties regarding treatment, a notification list of contacts and telephone numbers has been prepared for the truck operators and operators of the WWTP. It will be incumbent of the WWTP operator for any delivered wastewaters, that the waters be introduced to either system at such a rate as to not detrimentally affect the performance of the existing system operation.

**(Footnote 1) - Excessive oil or sheen noted on incoming waters will be removed via skimming or other available means to separate oils from water, prior to treatment.**

Revised 12/11/12  
Timothy P Long

**Long, Tim P.**

---

**From:** Jennifer Lauzon <jllauzon@gw.dec.state.ny.us>  
**Sent:** Tuesday, January 08, 2013 8:38 AM  
**To:** Long, Tim P.  
**Cc:** Benjamin Girtain Plowe; Steve Botsford  
**Subject:** Re: ALCOA West Facility Waste Water Management plan  
**Attachments:** Alcoa West WWMP Update.010813.pdf

Tim,

Attached is a response to your Waste Water Management Plan update. If you have any questions, please feel free to give me a call.

Thanks,  
Jennifer

>>> "Long, Tim P." <Tim.Long@alcoa.com> 12/11/2012 2:00 PM >>>

Jen, I have making an effort to update the Waste water management plans for East/West and have found an item I would like to address and update. Please review and approve the following addition to the West facility Management plan for permit NY 0001732#. I have a hard copy in the mail. Any questions please call. Thanks Tim

Specific addition to the plan, Under:

**Identification of Miscellaneous waters for treatment at 01D or 01A :** The overflow end point treatment has until this addition never stated where the overflow from the EQ tank is treated

L.) Overflow from the sanitary equalization tank during wet weather events and 01D outages is sent to the 01A (CITF) treatment system where it will receive settling, duel media filtration and carbon adsorption.

Timothy P Long  
Staff Environmental Engineer  
Global Primary Products  
Massena Operations East and West Facilities  
Phone 315-764-4914  
fax 315-764-4460  
[tim.long@alcoa.com](mailto:tim.long@alcoa.com)

## ATTACHMENT 3



MASSENA OPERATIONS CHEMLAB, PO BOX 150, E. PARK AVE., MASSENA NY 13662

Effective Date: 05/01/05	SPDES SAMPLING & DMR REPORTING PLAN  Subject:  FLOW CHARTS	Page: 1 of 80
Section No.: 13		Revised: 05/05/05
Approved By: <i>NMLP</i>		Revised By: <i>NMLP</i>

### Flow Charts

The Flow Chart Book is a manual containing the data necessary to calculate the flows in GPD at each of the weirs and flumes. The manual also contains weir and Parshall flume dimensions.

#### Weir and Flume Locations:

1. Alcoa West Plant Outfall 001 (9 ft rectangular weir w/end contractions)
2. Alcoa West Plant Outfall 003 (1.5 ft Parshall flume)
3. Alcoa West Plant Outfall 004 (1.5 ft Cipolletti weir)
4. Alcoa West Plant Outfall 007 (4.5 ft H flume)
5. Alcoa West Plant Outfall 008 (21" Palmer-Bowlus flume)
6. Alcoa West Plant Outfall 01A (1.5 ft Cipolletti weir)
7. Alcoa West Plant Outfall 01D (90° V-notch weir)
8. Alcoa West Plant Outfall 01E (1.0 ft Parshall flume)
9. Alcoa West Plant Outfall 01G-131 (90° V-notch weir)
10. Alcoa West Plant Outfall 01G-140 (90° V-notch weir)
11. Alcoa West Plant Outfall 01H (90° V-notch weir)
12. Alcoa West Plant Outfall 01I (24" Palmer-Bowlus flume)
13. Alcoa East Plant Outfall 001 (2.5 ft rectangular weir w/end contractions)
14. Alcoa East Plant Outfall 002 (3.0 ft rectangular weir w/end contractions)
15. Alcoa East Plant Outfall 003 (90° V-notch weir)
16. Alcoa East Plant Outfall 01A (22.5° V-notch weir)
17. Alcoa East Plant Outfall 01B (22.5° V-notch weir)
18. Alcoa East Plant Outfall 005 (24" ID pipe)
19. Alcoa East Plant Outfall 008 (4.5 ft. H flume)
20. Alcoa East Plant Outfall 010 (4.5 ft. H flume)

Att. 4

## **AREA III - BMP CHECKLIST- 7/24/2017**

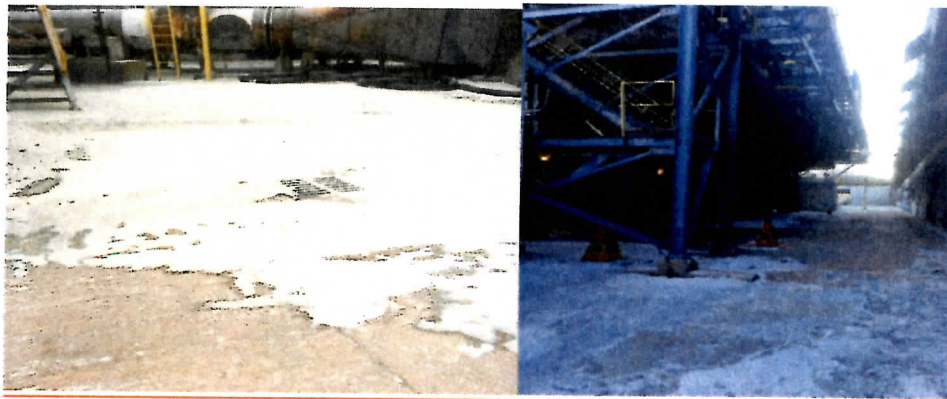
### **Good housekeeping (interior)**

Floors being swept & clean of debris?

Relining **Y**

Court yards **N**

These photos are typical of court yards, material is making it to drain...Some look better from the last inspection, Thank you



Drain pyramids' have been installed in some locations

**Is there a plan to complete all courtyards?**



**Numerous leaks in the alumina conveyance system**

**Alumina/Bath storage area** Y

**Spill Prevention and Controls (Interior)**

**Oil products stored on pallets?** Y

**Spills kits staged and accessible** Y

**Manholes conditions** G

## **Materials Storage (Exterior)**

**Waste boxes? N Bottles at drains, dumpsters with bath material on ground**

**Oily equipment or oily debris Y**

## **Management of Stormwater Runoff (Exterior)**

**Manholes, catch basins are unobstructed? Y**

**Road ditches are open and properly drain? Y**

**Outfall 03A testing and cleaning for Fluoride was completed 3/6/17. Manhole 15 was repaired. Flow monitoring weir replaced**

**These are the French drains under the lower west Potline**

**Compliance testing 3-20, 21, 22**

**03A has tested outside the monitor limits for June, re-test and laser lines Aug 29th**

## **AREA III – BMP CHECKLIST-6/28/2017**

### **Good housekeeping (interior)**

**Floors being swept & clean of debris?**

**Relining** **Y**

**Court yards** **N**

**These photos are typical of all three court yards, material is making it to drain...**



**Drain pyramids' have been installed in some locations**

**Is there a plan to complete all courtyards?**

**Alumina/Bath storage area** **Y**

## **Spill Prevention and Controls (Interior)**

**Oil products stored on pallets?** **Y**

**Spills kits staged and accessible** **Y**

**Manholes conditions** **G**

## **Materials Storage (Exterior)**

**Waste boxes?** **N** **Bottles at drains, dumpsters with bath material on ground**

**Oily equipment or oily debris** **Y**





Man

Man

Road

Outf

3/6/1

repl

The

Com

03A

and



## **Management of Stormwater Runoff (Exterior)**

**Manholes, catch basins are unobstructed? Y**

**Road ditches are open and properly drain? Y**

**Outfall 03A testing and cleaning for Fluoride was completed 3/6/17. Manhole 15 was repaired. Flow monitoring weir replaced**

**These are the French drains under the lower west Potline**

**Compliance testing 3-20, 21, 22**

**03A has tested outside the monitor limits for June, re-test and laser lines in July-Aug**

1775

## AREA II - BMP Checklist 6-28-2017

### Good Housekeeping (Interior)

Floors being swept & clean of debris?

**Ingot Waste  
water Settling  
wells are due for  
cleaning**

Casthouse Y / N  
FMM Shop Y / N  
Fab Shop and Garage Y / N  
Electrical Shop Y / N  
Alloy Storage Area Y / N  
Oilers Area/Accumulation Crib Area Y / N  
General Y / N

All  
locations  
look  
good

### Spill Prevention and Controls (Interior)

Oil product stored on spill pallets?

Casthouse Y / N

Spill kits staged and accessible?

FMM Shop Y / N

Manholes sealed where specified?

Fab Shop and Garage Y / N

Alloy Storage Area Y / N

Oilers Area / Accumulation Crib Area Y / N

General Y / N

All  
locations  
look good

All locations look good

### Material Storage (Exterior)

Oily scrap or oily scrap boxes?

North Pad & West Side Y / N

Oily equipment or oily debris?

North Pad & West Side Y / N

Oily saw chips or process materials?

North Pad & West Side Y / N

Refractory roll-offs covered?

North Pad & West Side Y / N

### Management of Stormwater Runoff (Exterior)

Manholes, catch basins are unobstructed?

All locations look good

North, West & South Pads Y / N

Road ditches are open and properly drain?

North, West & South Pads

No significant erosion occurring?

North, West & South Pads Y / N

NOTES:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Thank you for the fix of the Ferric feed line this week!!

\_\_\_\_\_

## **AREA I – BMP CHECKLIST 6-15-2017**

### **Good housekeeping (interior)**

Floors being swept & clean of debris? Y/

### **Spill Prevention and Controls (Interior)**

Oil products stored on pallets? Y/

Spills kits staged and accessible Y/

Manholes conditions G/

### **Materials Storage (Exterior)**

Waste boxes? /N

Oily equipment or oily debris /N

### **Management of Stormwater Runoff (Exterior)**

Manholes, catch basins are unobstructed? Y/

Road ditches are open and properly drain? Y/

## **Spill Prevention and Controls (Interior)**

Oil products stored on pallets? **Y**

Spills kits staged and accessible **Y**

Manholes conditions **G**

## **Materials Storage (Exterior)**



Any materials stored outside should be tarped from the elements

Waste boxes? **Y**

Oily equipment or oily debris **Y**

## **Management of Stormwater Runoff (Exterior)**

Manholes, catch basins are unobstructed? **Y**

Road ditches are open and properly drain? **Y**

1177.6

## **AREA III Carbon- BMP CHECKLIST**

**8/23/2017 T. Long**

**Good housekeeping (interior)**

**Floors being swept & clean of debris?**

**Court yards Y**

**Coke/Pitch storage area N**



**Please close this door as it is allowing carbon dust to escape to the air and ground!!!!**

**THIS HAS BEEN IDENTIFIED IN MULTIPLE INSPECTIONS**

## ST. LAWRENCE RIVER



(1) INCLUDES CN BEARING WATERS FROM EAST PLANT  
(2) EMERGENCY BY PASS.

PRODUCTION AREAS  
PRODUCTION WATER USES  
OTHER SOURCES OF WATER TO OUTFALLS

**RIVER INTAKE**  
**FLOW DIRECTION**

— — — LINE NOT NORMALLY USED  
MGD MILLION GALLONS PER DAY

ARCONIC PLANT  
2017 WATER USAGE  
SCHEMATIC



*Arconic Inc.  
Massena Operations  
45 County route 42  
Massena, NY 13662-0150 USA*

Att'g

2017 June 27

Chief, SPDES Compliance Information Section  
New York State Department of Environmental Conservation  
Bureau of Watershed Compliance Programs  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3506

**RE: DISCHARGE MONITORING REPORT MAY 2017  
NY- 0001732 ARCONIC MASSENA OPERATIONS**

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Dear Sir/Madam:

Attached is the May 2017 Discharge Monitoring Report (DMR) for Arconic Massena Operations.

**Outfall 001**

Date	Parameter	Result	Limit
5/2/2017	Benzo A Pyrene	100 ug/l daily/max	90 ug/l daily/max
5/2/2017	Aluminum	254 lbs daily/max	240 lbs daily/max
5/2/2017	Fluoride	63 lbs daily/max	43 lbs daily/max

On 5/22/2017, Arconic's Tim Long notified NYSDEC's David Rarick of exceedances of the above parameters at the 001# Outfall. From April 1, 2017 to May 1, 2017, Massena experienced approximately 6.42 inches of rain plus late winter snowmelt (normal average rainfall during this period is 2.82 inches). This precipitation equates to approximately 150,000,000 gallons of water that requires treatment due to the very large industrial footprint (includes Alcoa USA) at Massena Operations. For the same time period, Massena Operations has approximately 120,000,000 gallons of treatment capacity at the two major storm water treatment facilities. The 30,000,000 gallon treatment capacity deficit resulted in the bypass of Outfall 004/005 Impoundment and the redirection of the Area III Impoundment directly to the Outfall 001 where under normal operations it receives treatment via the Central Impoundment treatment system. Overall water volumes have decreased and the Area III impoundment has been directed back to the Central Impoundment Treatment facility as of 5/9/2017.

**Outfall 011**

There was a detect at this outfall for Aroclor 1242# at 230 ppt within the Month

**Outfall 01A**

An algaecide application was performed on 5/8 and 5/22/2017. Endothall samples were collected and the results are presented in the following table:

Date	Flow	Endothall	Units
	MGD	ug/L	lbs/day
5/09/2016	1.45	<9	<0.109
5/11/2016	1.45	<9	<0.109
5/23/2016	1.01	<9	<0.076
5/25/2016	1.37	<9	<0.103

**Additional Information:**

Attached along with the previously specified data, you will find sheets summarizing:

2<sup>nd</sup> Quarter Wet testing for the 008 Outfall

- 1) Area III Impoundment PCB data per Special Condition M;
- 2) Sampling data for VOA's, PAHs, PCBs and Phenols taken at each of the outfalls;
- 3) A monthly summary of wastewater received in truckloads at the WWTP, as required by Special Condition B on page 25 of the permit;
- 4) Tables summarizing the MDLs Alcoa is using;
- 5) The "analytical method checklist for reporting non-detect data" as a reference guide.

If you have any questions, please contact me at (315) 764-4737.

Sincerely,

Todd Furnia  
Environmental Manager – Arconic Massena Operations

Cc w/attachments: Environmental File Copy



**ARCONIC**

**Arconic Inc.**  
**Massena Operations**  
45 County route 42  
Massena, NY 13662-0150 USA

AH:

2017 August 25

Chief, SPDES Compliance Information Section  
New York State Department of Environmental Conservation  
Bureau of Watershed Compliance Programs  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-3506

**RE: DISCHARGE MONITORING REPORT JULY 2017**  
**NY- 0001732 ARCONIC MASSENA OPERATIONS**

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Dear Sir/Madam:

Attached is the July 2017 Discharge Monitoring Report (DMR) for Arconic Massena Operations.

**Outfall 001**

Date	Parameter	Result	Limit
7/25/2017	Fluoride	390 lbs daily/max	240 lbs daily/max
7/25/2017	Aluminum	56 lbs daily/max	43 lbs daily/max

On 8/4/2017, Arconic's Tim Long notified NYSDEC's David Rarick of an exceedance of the above parameters at the 001# Outfall. On 7/25/2017, Massena experienced approximately 1.77 inches of rain. During this time frame, The Central Impoundment Treatment System West chamber was being de-watered for a cleaning project to take place in August. The de-watering necessitated the redirection of the Area III Impoundment directly to the Outfall 001 where under normal operations it receives treatment via the Central Impoundment treatment system.

Regarding PCB sample from 7/13:

The PCB LCS, LCSD, and MS, associated with sample L1724088-01, exhibited no internal standard recoveries and

therefore could not be reported. The associated Method Blank and sample are within acceptance criteria and are reported at Arconic's request, due to insufficient sample remaining for re-extraction (they consumed our backups). Please note, the results are not within method compliance. Results were ND, typical of this location.

**Outfall 01A**

An algaecide application was performed on 7/3 and 7/17/2017. Endothall samples were collected and the results are presented in the following table:

Date	Flow	Endothall	Units
	MGD	ug/L	lbs/day
7/05/2017	1.33	<9	<0.10
7/06/2017	1.47	<9	<0.11
7/18/2017	.206	<9	<0.015
7/20/2017	1.42	<9	<0.11

**Additional Information:**

Attached along with the previously specified data, you will find sheets summarizing:

- 1) Area III Impoundment PCB data per Special Condition M;
- 2) Sampling data for VOA's, PAHs, PCBs and Phenols taken at each of the outfalls;
- 3) A monthly summary of wastewater received in truckloads at the WWTP, as required by Special Condition B on page 25 of the permit;
- 4) Tables summarizing the MDLs Alcoa is using;
- 5) The "analytical method checklist for reporting non-detect data" as a reference guide.

If you have any questions, please contact me at (315) 764-4737.

Sincerely,

Todd Furnia  
Environmental Manager – Arconic Massena Operations

Cc w/attachments: Environmental File Copy